

# **EXHIBIT 11**

PTO/SB/05 (02-07)

Approved for use through 02/28/2007. OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

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# UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

|                        |  |
|------------------------|--|
| Attorney Docket No.    | ALC 3328-CON   |
| First Inventor         | John Madsen  |
| Title                  | Ingress Traffic Flow Control in a Data Communications System |
| Express Mail Label No. |  |

## APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ **Fee Transmittal Form** (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ **Applicant claims small entity status.**  
See 37 CFR 1.27.
3. ☒ **Specification** [Total Pages 14]  
Both the claims and abstract must start on a new page  
(For information on the preferred arrangement, see MPEP 608.01(a))
4. ☒ **Drawing(s)** (35 U.S.C. 113) [Total Sheets 1]
5. **Oath or Declaration** [Total Sheets 2]  
  - a. ☒ Newly executed (original or copy)
  - b. ☐ A copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)
    - i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s)  
name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☒ **Application Data Sheet.** See 37 CFR 1.76
7. ☐ **CD-ROM or CD-R** in duplicate, large table or  
Computer Program (Appendix)  
☐ Landscape Table on CD
8. **Nucleotide and/or Amino Acid Sequence Submission**  
(if applicable, items a. – c. are required)
  - a. ☐ Computer Readable Form (CRF)
  - b. Specification Sequence Listing on:
    - i. ☐ CD-ROM or CD-R (2 copies); or
    - ii. ☐ Paper
  - c. ☐ Statements verifying identity of above copies

ADDRESS TO: Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

## ACCOMPANYING APPLICATION PARTS

9. ☒ **Assignment Papers** (cover sheet & document(s))  
Name of Assignee ALCATEL LUCENT
10. ☐ **37 CFR 3.73(b) Statement** (when there is an assignee) ☐ **Power of Attorney**
11. ☐ **English Translation Document** (if applicable)
12. ☐ **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)  
☐ Copies of citations attached
13. ☐ **Preliminary Amendment**
14. ☒ **Return Receipt Postcard** (MPEP 503)  
(Should be specifically itemized)
15. ☐ **Certified Copy of Priority Document(s)**  
(if foreign priority is claimed)
16. ☐ **Nonpublication Request** under 35 U.S.C. 122(b)(2)(B)(i).  
Applicant must attach form PTO/SB/35 or equivalent.
17. ☐ **Other:** \_\_\_\_\_

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Prior application information: Examiner \_\_\_\_\_ Art Unit: \_\_\_\_\_

## 19. CORRESPONDENCE ADDRESS

☒ The address associated with Customer Number: 76614 OR ☐ Correspondence address below

|         |           |          |  |  |  |
|---------|-----------|----------|--|--|--|
| Name    |           |          |  |  |  |
| Address |           |          |  |  |  |
| City    | State     | Zip Code |  |  |  |
| Country | Telephone | Email    |  |  |  |

|                   |                        |                                   |                  |
|-------------------|------------------------|-----------------------------------|------------------|
| Signature         | <u>Terry W. Kramer</u> | Date                              | January 27, 2012 |
| Name (Print/Type) | Terry W. Kramer        | Registration No. (Attorney/Agent) | 41,541           |

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (02-07)

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

**FEE TRANSMITTAL**  
**For FY 2007**☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) \$1250.00

**Complete if Known**

|                      |                  |
|----------------------|------------------|
| Application Number   | Unassigned       |
| Filing Date          | October 18, 2007 |
| First Named Inventor | John Madsen      |
| Examiner Name        | Unassigned       |
| Art Unit             | Unassigned       |
| Attorney Docket No.  | ALC 3328-CON     |

**METHOD OF PAYMENT** (check all that apply)

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: 500578 Deposit Account Name: Terry W. Kramer

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

| Application Type | FILING FEES |                       | SEARCH FEES |                       | EXAMINATION FEES |                       | Fees Paid (\$) |
|------------------|-------------|-----------------------|-------------|-----------------------|------------------|-----------------------|----------------|
|                  | Fee (\$)    | Small Entity Fee (\$) | Fee (\$)    | Small Entity Fee (\$) | Fee (\$)         | Small Entity Fee (\$) |                |
| Utility          | 300         | 150                   | 500         | 250                   | 200              | 100                   | \$1250.00      |
| Design           | 200         | 100                   | 100         | 50                    | 130              | 65                    |                |
| Plant            | 200         | 100                   | 300         | 150                   | 160              | 80                    |                |
| Reissue          | 300         | 150                   | 500         | 250                   | 600              | 300                   |                |
| Provisional      | 200         | 100                   | 0           | 0                     | 0                | 0                     |                |

**2. EXCESS CLAIM FEES**

| Fee Description                                    | Fee (\$) | Small Entity Fee (\$) |
|--|----------|-----------------------|
| Each claim over 20 (including Reissues)            | 50       | 25                    |
| Each independent claim over 3 (including Reissues) | 200      | 100                   |
| Multiple dependent claims                          | 360      | 180                   |

**Total Claims**      **Extra Claims**      **Fee (\$)**      **Fee Paid (\$)**

\_\_\_\_\_ - 20 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

HP = highest number of total claims paid for, if greater than 20.

**Indep. Claims**      **Extra Claims**      **Fee (\$)**      **Fee Paid (\$)**

\_\_\_\_\_ - 3 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

| Total Sheets        | Extra Sheets       | Number of each additional 50 or fraction thereof | Fee (\$) | Fee Paid (\$) |
|---------------------|--------------------|--|----------|---------------|
| _____ - 100 = _____ | _____ / 50 = _____ | _____ (round up to a whole number) x _____       | _____    | _____         |

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): \_\_\_\_\_

**SUBMITTED BY**

|                   |                        |  |                        |
|-------------------|------------------------|--|------------------------|
| Signature         | <u>Terry W. Kramer</u> | Registration No. (Attorney/Agent) 41,541 | Telephone 703-519-9801 |
| Name (Print/Type) | Terry W. Kramer        |  | Date January 27, 2012  |

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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|   |  |                        |              |
|---|--|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b>   |  | Attorney Docket Number | ALC 3328-CON |
|   |  | Application Number     |              |
| Title of Invention  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |                        |              |
| <p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.</p> <p>This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p> |  |                        |              |

**Secrecy Order 37 CFR 5.2**

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

**Applicant Information:**

|  |                      |  |             |   |
|--|----------------------|--|-------------|---|
| <b>Applicant 1</b>   |                      |  |             |   |
| Applicant Authority <input checked="" type="radio"/> Inventor  |                      | <input type="radio"/> Legal Representative under 35 U.S.C. 117 |             | <input type="radio"/> Party of Interest under 35 U.S.C. 118 |
| Prefix   | Given Name           | Middle Name  | Family Name | Suffix  |
|  | John                 |  | Madsen      |   |
| Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service |                      |  |             |   |
| City   | Ottawa               | Country Of Residence   | CA          |   |
| Citizenship under 37 CFR 1.41(b)   |                      | CA   |             |   |
| Mailing Address of Applicant:  |                      |  |             |   |
| Address 1  |                      | 48 Cecil Walden Ridge  |             |   |
| Address 2  |                      |  |             |   |
| City   | Ottawa               | State/Province   | ON          |   |
| Postal Code  | K2K 3C6              | Country  | CA          |   |
| <b>Applicant 2</b>   |                      |  |             |   |
| Applicant Authority <input checked="" type="radio"/> Inventor  |                      | <input type="radio"/> Legal Representative under 35 U.S.C. 117 |             | <input type="radio"/> Party of Interest under 35 U.S.C. 118 |
| Prefix   | Given Name           | Middle Name  | Family Name | Suffix  |
|  | Joey                 |  | Chow        |   |
| Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service |                      |  |             |   |
| City   | Nepean, Ontario      | Country Of Residence   | CA          |   |
| Citizenship under 37 CFR 1.41(b)   |                      | CA   |             |   |
| Mailing Address of Applicant:  |                      |  |             |   |
| Address 1  |                      | 43 Birchview Road  |             |   |
| Address 2  |                      |  |             |   |
| City   | Nepean               | State/Province   | ON          |   |
| Postal Code  | K2G 3G3              | Country  | CA          |   |
| <b>Applicant 3</b>   |                      |  |             |   |
| Applicant Authority <input checked="" type="radio"/> Inventor  |                      | <input type="radio"/> Legal Representative under 35 U.S.C. 117 |             | <input type="radio"/> Party of Interest under 35 U.S.C. 118 |
| Prefix   | Given Name           | Middle Name  | Family Name | Suffix  |
|  | Dion                 |  | Pike        |   |
| Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service |                      |  |             |   |
| City   | Stittsville, Ontario | Country Of Residence   | CA          |   |



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|  |             |  |    |              |  |
|--|-------------|--|----|--------------|--|
| <b>Application Data Sheet 37 CFR 1.76</b>  |             | Attorney Docket Number                                       |    | ALC 3328-CON |  |
|  |             | Application Number   |    |              |  |
| Title of Invention   |             | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |    |              |  |
| Citizenship under 37 CFR 1.41(b)   |             | CA   |    |              |  |
| Mailing Address of Applicant:  |             |  |    |              |  |
| Address 1  |             | 14 Morningsun Crescent                                       |    |              |  |
| Address 2  |             |  |    |              |  |
| City   | Stittsville | State/Province   |    | ON           |  |
| Postal Code  | K2S 1J6     | Country  | CA |              |  |
| All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the <b>Add</b> button. <span style="float: right;">Add</span> |             |  |    |              |  |

**Correspondence Information:**

|   |                      |           |              |
|---|----------------------|-----------|--------------|
| Enter either Customer Number or complete the Correspondence Information section below.<br>For further information see 37 CFR 1.33(a). |                      |           |              |
| <input type="checkbox"/> An Address is being provided for the correspondence Information of this application.                         |                      |           |              |
| Customer Number   | 76614                |           |              |
| Email Address   | mail@krameramado.com | Add Email | Remove Email |

**Application Information:**

|   |  |   |                          |
|---|--|---|--------------------------|
| Title of the Invention                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |   |                          |
| Attorney Docket Number                  | ALC 3328-CON   | Small Entity Status Claimed               | <input type="checkbox"/> |
| Application Type                        | Nonprovisional   |   |                          |
| Subject Matter                          |  |   |                          |
| Suggested Class (if any)                |  | Sub Class (if any)                        |                          |
| Suggested Technology Center (if any)    |  |   |                          |
| Total Number of Drawing Sheets (if any) | 1  | Suggested Figure for Publication (if any) | 1                        |

**Publication Information:**

|  |
|--|
| <input type="checkbox"/> Request Early Publication (Fee required at time of Request 37 CFR 1.219)  |
| <input type="checkbox"/> <b>Request Not to Publish.</b> I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application <b>has not and will not</b> be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing. |

**Representative Information:**

|   |  |  |   |
|---|--|--|---|
| Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Enter either Customer Number or complete the Representative Name section below. If both sections are completed the Customer Number will be used for the Representative Information during processing. |  |  |   |
| Please Select One:  | <input checked="" type="radio"/> Customer Number | <input type="radio"/> US Patent Practitioner | <input type="radio"/> Limited Recognition (37 CFR 11.9) |

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|   |  |                        |              |
|---|--|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |  | Attorney Docket Number | ALC 3328-CON |
|   |  | Application Number     |              |
| Title of Invention                        | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |                        |              |
| Customer Number                           | 76614  |                        |              |

**Domestic Benefit/National Stage Information:**

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78(a)(2) or CFR 1.78(a)(4), and need not otherwise be made part of the specification.

|                          |                 |                          |                          |
|--------------------------|-----------------|--------------------------|--------------------------|
| Prior Application Status | Pending         | <a href="#">Remove</a>   |                          |
| Application Number       | Continuity Type | Prior Application Number | Filing Date (YYYY-MM-DD) |
|                          | Continuation of | 11907871                 | 2007-10-18               |

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

**Foreign Priority Information:**

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(a).

|                        |                      |                                 |   |
|------------------------|----------------------|---------------------------------|---|
| <a href="#">Remove</a> |                      |                                 |   |
| Application Number     | Country <sup>1</sup> | Parent Filing Date (YYYY-MM-DD) | Priority Claimed  |
|                        |                      |                                 | <input checked="" type="radio"/> Yes <input type="radio"/> No |

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

**Assignee Information:**

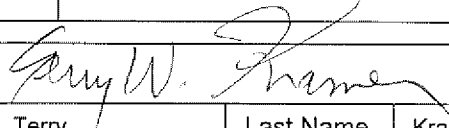
Providing this information in the application data sheet does not substitute for compliance with any requirement of part 3 of Title 37 of the CFR to have an assignment recorded in the Office.

|  |                   |                |       |
|--|-------------------|----------------|-------|
| <b>Assignee 1</b>  |                   |                |       |
| If the Assignee is an Organization check here. <input checked="" type="checkbox"/>             |                   |                |       |
| Organization Name  | Alcatel-Lucent    |                |       |
| <b>Mailing Address Information:</b>  |                   |                |       |
| Address 1  | 54, rue La Boetie |                |       |
| Address 2  |                   |                |       |
| City   | Paris             | State/Province |       |
| Country <sup>1</sup>   | FR                | Postal Code    | 75008 |
| Phone Number   |                   | Fax Number     |       |
| Email Address  |                   |                |       |
| Additional Assignee Data may be generated within this form by selecting the <b>Add</b> button. |                   |                |       |

**Signature:**

A signature of the applicant or representative is required in accordance with 37 CFR 1.33 and 10.18. Please see 37 CFR 1.4(d) for the form of the signature.

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|   |   |  |        |                     |            |
|---|---|--|--------|---------------------|------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |   | Attorney Docket Number                                       |        | ALC 3328-CON        |            |
|   |   | Application Number   |        |                     |            |
| Title of Invention                        |   | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |        |                     |            |
| Signature                                 |  |  |        | Date (YYYY-MM-DD)   | 2012-01-27 |
| First Name                                | Terry   | Last Name  | Kramer | Registration Number | 41541      |

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## **INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM**

### **Field of the invention**

**[001]** The invention is directed to data packet communications systems, and in particular to controlling the flow of incoming data packets to data processing resources in such systems.

### **Background of the Invention**

**[002]** Flow control is performed on ingress data packets when the incoming rate of the data packets over a given period of time exceeds the rate at which the data packets can be processed. The excessive incoming rate of data packets results in increased fill-levels of ingress queues to the data processing resources, any of which levels can cause flow control measures to be initiated when the level exceeds a predetermined threshold. One flow control technique used in data communications that is in accordance with the aforementioned principle is backpressure signaling.

**[003]** A simple backpressure signaling technique is to use on-off signaling. According to this technique, a receiver queue of a data communications system, upon crossing a fill-level threshold, causes a backpressure signal (e.g. halt) to be generated that is sent to the source of the packets. The backpressure signal (halt) indicates to the source that it should suspend sending packets to that queue until further notice, which will be given in the form of another backpressure signal (e.g. resume). In some cases there can be more than one packet source, and in those cases the backpressure signal would normally be sent to all of those sources. A problem with this simple on-off backpressure signaling is that all traffic is treated identically. That is, high-priority, network-control traffic undergoes the same backpressure as low-priority, best-effort traffic, to the point where a flood of low-priority traffic can halt the flow of low-bandwidth, high-priority traffic.

Impeding the flow of high-priority traffic can have service affecting implications such as network instability and lost data.

**[004]** More advanced backpressure signaling techniques are known that use more than simple on-off signaling. These techniques include those that apply flow control to data packets of only certain priorities. According to such techniques, when the fill-level threshold of a priority-specific receiver queue is crossed, traffic of the corresponding priority is halted using on-off backpressure signaling. This approach is able to ensure that low-priority traffic does not impede the flow of higher-priority traffic. However, a disadvantage of this approach is that ingress bandwidth may go unutilized. For example, low priority traffic may be halted when a corresponding fill-level threshold is crossed even when no higher priority traffic is present.

**[005]** Accordingly, there is a need to provide ingress traffic flow control that gives precedence to high-priority traffic over low-priority traffic while minimizing unutilized ingress bandwidth.

### **Summary of the Invention**

**[006]** It is an object of the invention to provide improved method and apparatus for ingress traffic flow control in a data communication system.

**[007]** According to an aspect of the invention there is provided a traffic flow control system for controlling a flow of ingress data packets to be transmitted over a serial link, the system comprising: a plurality of ingress buffers, one or more of which for storing a respective type of data packets in the flow of ingress data packets; a plurality of rate limiters, one or more of which for providing an amount of rate limiting to a flow of data packets from a respective ingress buffer, the amount of rate limiting being dependent upon a nominal amount of rate limiting adjusted by a weighting factor corresponding to that rate limiter; a

multiplexer for receiving data packets from the plurality of rate limiters and serially multiplexing the data packets for transmission over the serial link; and a controller operable to receive a backpressure message indicating a fill-level state of receive queues for receiving data packets from the serial link, and being operable to determine weighting factors for the rate limiters according to the backpressure message.

**[008]** According to an aspect of the invention there is provided a method of performing flow control on a flow of data packets for transmission over a serial link, the method comprising the steps of: receiving a backpressure message having contents that indicates one of a plurality of fill-level states of receive queues coupled to the serial link for receiving the data packets, wherein one or more of the receive queues corresponds to a respective type of data packet traffic; determining a set of weighting factors by reading them from a mapping of weighting factors to various backpressure messages according to the contents of the backpressure message, wherein the mapping includes for a given backpressure message content, a set of weighting factors of which one or more weighting factors corresponds to a respective type of data packet traffic; and adjusting an amount of rate limiting applied to data packets of like type by a respective weighting factor of the determined set of weighting factors.

**[009]** Some embodiments of the invention provide flow control of incoming data packets to data processing resources by using an intelligent controller that can receive and react to advanced backpressure messages. The backpressure messages can be considered to be multi-level and multi-dimensional because they provide information on the fill-level of receive queues of different traffic priorities, hence multi-level, and of various traffic types, hence multi-dimensional. These advanced backpressure messages are used to limit the rate of data based on, but not limited to, some of the following factors: class, priority, port, customer, type of data, etc. The intelligent controller may also take this information and generate a traffic preference message to an upstream data processing unit to

inform the upstream unit of the most appropriate type of data that should be transmitted downstream at that time, thereby improving the likelihood of the transmitted data being processed in a proper and timely manner by downstream data processing resources.

**[0010]** Advantageously, embodiments of the invention improve the performance of an ingress data path of a communications system by ensuring that high-priority traffic has precedence over traffic of lower priority while maximizing utilization of the ingress data path bandwidth.

### **Brief Description of the Drawings**

**[0011]** The invention will be further understood from the following detailed description with reference to the drawings, in which:

**Figure 1** is a high-level block diagram of an ingress traffic flow control system according to an embodiment of the invention; and

### **Detailed Description**

**[0012]** Referring to **Figure 1**, an ingress traffic flow control system **10** controls the flow of ingress data packets **12** to a downstream data processing unit **34**. The system **10** includes ingress buffers **14**, **16**, **18** for receiving the ingress data packets **12** and temporarily storing them before they are transmitted on a serial link **28** to the data processing unit **34**. The ingress buffers **14**, **16**, **18** are each associated with a respective priority level high, medium, low, and each stores data packets of a corresponding priority therein. Rate limiters **20**, **22**, **24** control the rate at which data packets from respective ingress buffers **14**, **16**, **18** are forwarded to a multiplexer **26** that multiplexes the data packets onto the serial link **28**. The multiplexer **26** employs a simple round-robin technique to multiplex data packets onto the serial link **28**. Each rate limiter **20**, **22**, **24** applies an amount of rate limiting in accordance with a respective weighting factor **W1**, **W2**, **W3** provided by a controller **42**. Any of the weighting factors may be varied by the



controller **42** as will be explained later. The resulting flow of serial data packets **30** on the serial link **28** comprises flows of data packets of high, medium, and low priorities, as may be available in the flow of ingress data packets **12**, at individual flow rates that are limited by the corresponding rate limiters **20, 22, 24**.

[0013] The downstream data processing unit **34** for processing the serial data packets **30** includes an ingress queue module **32** and a backpressure signaling module **38** in addition to data processing functionality, which is not shown for simplicity and because it is not relevant to this embodiment of the invention. The downstream data processing unit **34** receives serial data packets **30** from the serial link **28** and performs data packet processing thereon resulting in a flow of egress data packets **36**. As may be necessary from time to time and depending on the respective incoming rates of high, medium and low priority data packets in the flow of serial data packets **30** and on the processing to be performed thereon, the backpressure signaling module **38** may generate and send a multi-priority backpressure message **40** to the controller **42** to affect the flow of serial data packets **30** that are incoming to the data processing unit **34**. The generation and use of the multi-priority backpressure message **40** will be explained after the ingress queue module **32** is explained in more detail.

[0014] The ingress queue module **32** includes receive queues **Q1, Q2, Q3** which each have one or more fill-level thresholds. The receive queue **Q3** has two such fill-level thresholds **T3** and **T4**, the latter of which is at a higher level than the former. An example fill-level of the receive queue **Q3** is shown as being between the fill-level thresholds **T3** and **T4**. The receive queue **Q2** has only one fill-level threshold **T2** and is shown having an example fill-level that is below the threshold **T2**. Likewise, the receive queue **Q1** has only one fill-level threshold **T1** and is shown having an example fill-level that is below the threshold **T1**.

[0015] The backpressure signaling module **38** generates a multi-priority backpressure message **40** having a given value **BP** that is determined by

considering, in combination, the fill-level of each of the receive queues **Q1**, **Q2**, **Q3** in comparison to their respective fill-level thresholds **T1**, **T2**, **T3** and **T4**. For example, the backpressure signaling module **38** may generate a backpressure signaling message having a content **BP=0** if the fill-levels of all the receive queues **Q1**, **Q2**, **Q3** are below their respective fill-level thresholds **T1**, **T2**, **T3** and **T4**; whereas another content **BP=1** may be generated for the example fill-levels shown in **Figure 1**. The flow control to be performed for a given content **BP** of the multi-priority backpressure message **40** is determined by the controller **42** according to a configurable mapping **44** of backpressure message **40** content **BP** to values of the weighting factors **W1**, **W2**, **W3**.

[0016] **Table 1** shows the an example configurable mapping of weighting factors **W1**, **W2**, **W3** to backpressure message **40** content **BP** for various combinations of fill-level of the receive queues **Q1**, **Q2**, **Q3** compared to their respective fill-level thresholds **T1**, **T2**, **T3** and **T4**. The receive queues **Q1**, **Q2**, **Q3** correspond to traffic priorities of high, medium and low, respectively. In the table, under the weighting factors “none” means no rate limiting, “block” means halt traffic flow, and “limit” means normal rate limiting for the given priority of traffic. The specific amount of rate limiting corresponding normal rate limiting could be anywhere between the former two rate limiting extremes, i.e. halt traffic and no rate limiting, and would be configurable. To preserve the precedence of higher priority traffic over lower priority traffic, the amount of rate limiting corresponding to normal rate limiting would increase for progressively lower priorities of traffic. In this way, when all of the rate limiters **20**, **22**, **24** are applying normal rate limiting, e.g. corresponding to **BP=7** in **Table 1**, the precedence of higher priority traffic over lower priority traffic would be maintained. Furthermore, with reference to **BP=8** in **Table 1**, good bandwidth utilization is maintained by not blocking low priority traffic even if the fill level of the corresponding receive queue **Q3** has exceeded the 2nd fill-level threshold **T4**, as long as the fill levels of the medium and high priority receive queues **Q2** and **Q1** are below their respective fill-level thresholds **T2** and **T1**.

**Table 1: Configurable mapping of weighting factors**

| BP | Q1 fill level | Q2 fill level | Q3 fill level | W1    | W2    | W3    |
|----|---------------|---------------|---------------|-------|-------|-------|
| 0  | <T1           | <T2           | <T3           | None  | None  | None  |
| 1  | <T1           | >T2           | <T3           | None  | None  | None  |
| 2  | >T1           | <T2           | <T3           | None  | None  | Limit |
| 3  | >T1           | >T2           | <T3           | None  | Limit | Limit |
| 4  | <T1           | <T2           | >T3, <T4      | None  | None  | Limit |
| 5  | <T1           | >T2           | >T3, <T4      | None  | Limit | Limit |
| 6  | >T1           | <T2           | >T3, <T4      | None  | Limit | Limit |
| 7  | >T1           | >T2           | >T3, <T4      | Limit | Limit | Limit |
| 8  | <T1           | <T2           | >T4           | None  | None  | Limit |
| 9  | <T1           | >T2           | >T4           | None  | Limit | Block |
| 10 | >T1           | <T2           | >T4           | None  | None  | Block |
| 11 | >T1           | >T2           | >T4           | Limit | Block | Block |

**[0017]** It should be understood that the foregoing is a simple embodiment of the invention. Other, more complex embodiments could have hundreds of receive queues **Q1**, **Q2**, **Q3** and ingress buffers **14**, **16**, **18** and corresponding rate limiters **20**, **22**, **24**. Any of the receive queues **Q1**, **Q2**, **Q3** could be a hierarchical grouping of sub-queues. Furthermore, any of the receive queues **Q1**, **Q2**, **Q3** could be associated with one or more of traffic priority, class, type, source port, destination port, etc. Likewise with the ingress buffers **14**, **16**, **18** and corresponding rate limiters **20**, **22**, **24**. However, regardless of the foregoing variations, these embodiments would have two common aspects: a backpressure signaling module **38** that is operable to generate and transmit a backpressure message **40** that provides an indication of that status of the fill-level of receive queues **Q1**, **Q2**, **Q3** in comparison to their respective fill-level thresholds **T1**, **T2**, **T3** and **T4**; and a controller **42** operable to receive the backpressure message **40** and determine an amount of rate limiting to apply to ingress data packets

depending on the content **BP** of the backpressure message **40** and a configurable mapping **44** of the content **BP** and rate limiting weighting factors **W1, W2, W3**.

[0018]The configurable mapping **44** would be configured for a given communication system according to the data processing resources that are present in the system and other service or application specific provisioning existing in the system, for example as could relate to one or more virtual private networks. The controller **42** using the configurable mapping **44** along with the content **BP** of the backpressure message **40** determines rate limiting that should be performed on the ingress data packets as a method of flow control. This rate limiting may be based on, but is not limited to, some of the following factors: traffic class, traffic priority, destination port, customer network e.g. VPN, type of data, etc. This rate limiting is implemented by altering weighting factors **W1, W2, W3** in one or more of the rate limiters **20, 22, 24**, as specified in the configurable mapping **44**. Such an intelligent controller **42** can not only interpret simple on-off (link-level or per-virtual output queue (VOQ)) backpressure messages but also advanced backpressure messages **40** that can include priority, class, type of traffic, source port, destination port, etc. These advanced backpressure messages **40** can be considered multi-level and multi-dimensional.

[0019]These advanced backpressure messages **40** that are sent during periods of congestion or near-congestion allow a downstream data processing unit **34** to aid the controller **42**, which data to best send next. The controller **42** uses this advanced backpressure message **40** and the configurable mapping **44** to determine the most appropriate data to transmit next. The controller may generate a traffic preference message **46** to convey this determination to an upstream data processing unit to inform the upstream unit of the most appropriate type of data that should be transmitted downstream at that time, thereby improving the likelihood of the transmitted data being processed in a proper and timely manner by downstream data processing resources. Thus, the

intelligently selected traffic has a lower probability of being rejected by the downstream data processing unit **34** resulting in improved system performance. For example, referring to **Table 1** under **BP=9**, the traffic preference message would indicate that high priority traffic is preferred since medium priority traffic will be rate limited and low priority traffic will be blocked.

**[0020]** Data processing units that can make use of these traffic preference messages **46** include enhanced buffer managers that incorporate multi-level multi-dimensional aspects in their arbitration schemes. Additionally, a memory-less admission check-point for the passage of data could also make use of the traffic preference messages **46**. Such a check-point would use the information in the traffic preference message **46** to provide instantaneous admittance of preferred, hence highly valued, data during times of data congestion at the downstream data processing unit, thereby improving the effectiveness of the data communications system.

**[0021]** Advantageously, the use of a controller **42** capable of receiving and reacting to advanced backpressure messages **40** improves system throughput efficiency. Appropriate data is transmitted to the downstream data processing unit **34** during periods of traffic congestion resulting in lower loss of high valued data. The more high valued data that can be processed, especially during periods of congestion, or near-congestion, the greater value the communication system is to an end user.

**[0022]** Numerous modifications, variations and adaptations may be made to the embodiments of the invention described above without departing from the scope of the invention, which is defined in the claims.

## WHAT IS CLAIMED IS:

1. A method of performing flow control on a flow of data packets for transmission over a serial link, the method comprising the steps of:

a) receiving a backpressure message having contents that indicates one of a plurality of fill-level states of receive queues coupled to the serial link for receiving the data packets, wherein one or more of the receive queues corresponds to a respective type of data packet traffic;

b) determining a set of weighting factors by reading them from a mapping of weighting factors to various backpressure messages according to the contents of the backpressure message, wherein the mapping includes for a given backpressure message content, a set of weighting factors of which one or more weighting factors corresponds to a respective type of data packet traffic; and

c) adjusting an amount of rate limiting applied to data packets of like type by a respective weighting factor of the determined set of weighting factors.

2. The method of claim 1, further comprising generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet traffic preferred for transmission over the serial link in accordance with the determined set of weighting factors.

3. The method of claim 2, wherein the type of data packet is distinguished by one or more of the following parameters: traffic priority, traffic class, destination port, destination address, source address, and virtual private network identifier.

4. The method of claim 3, wherein at least one state of the plurality of fill-level states corresponds to a comparison of individual fill-levels of two or more receive queues with respective fill-level thresholds of those queues.

5. The method of claim 1, wherein a weighting factor in a given set of weighting factors, the weighting factor corresponding to one type of data packet traffic, has a value that is dependent on a fill-level state of a receive queue for the same type of data packet traffic and on a fill-level state of another receive queue for different type of data packet traffic.

6. The method of claim 1, wherein the weighting factors are configurable so as to effect, for at least one type of data packets, an amount of rate limiting having a value in an inclusive range between one extreme of no rate limiting and another extreme of blocking all data packets of that type.

7. The method of claim 6, wherein the weighting factors have been configured for a given communication system according to one or more of: data processing resources that are present in the system, service-specific or application-specific provisioning existing in the system.

8. A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a serial link, the system comprising:

a plurality of ingress buffers, one or more of which for storing a respective type of data packets in the flow of ingress data packets;

a plurality of rate limiters, one or more of which for providing an amount of rate limiting to a flow of data packets from a respective ingress buffer, the amount of rate limiting being dependent upon a nominal amount of rate limiting adjusted by a weighting factor corresponding to that rate limiter;



a multiplexer for receiving data packets from the plurality of rate limiters and serially multiplexing the data packets for transmission over the serial link; and

a controller operable to receive a backpressure message indicating a fill-level state of receive queues for receiving data packets from the serial link, and being operable to determine weighting factors for the rate limiters according to the backpressure message.

9. The system of claim 8, wherein the controller comprises a mapping of weighting factors to backpressure messages for determining the weighting factors.

10. The system of claim 9, further comprising a backpressure signaling module operable to generate the backpressure message by comparing fill-levels of the receive queues with respective fill-level thresholds.

11. The system of claim 10, wherein one or more of the receive queues are associated with a respective type of data packets.

12. The system of claim 11, wherein the type of data packets is distinguished by one or more of the following parameters: traffic priority, traffic class, destination port, destination address, source address, and virtual private network identifier.

13. The system of claim 8, wherein the weighting factors are configurable so as to effect, for at least one type of data packets, an amount of rate limiting having a value in an inclusive range between one extreme of no rate limiting and another extreme of blocking all data packets of that type.

14. The system of claim 13, wherein the weighting factors have been configured for a given communication system according to one or more of: data processing

resources that are present in the system, service-specific or application-specific provisioning existing in the system.

15. The system of claim 11, wherein a weighting factor associated with a specific backpressure message and type of data packets has a value in the mapping that is dependent on a fill-level of a receive queue for the same type of data packets and on a fill-level of another receive queue for different type of data packets.

16. The system of claim 8, wherein the controller is further operable to generate a traffic preference message for transmission to a source of the flow of ingress data packets, the traffic preference message indicating a type of data packet traffic preferred for transmission over the serial link in accordance with the determined weighting factors.

**ABSTRACT**

**[0023]** Embodiments of the invention provide flow control of incoming data packets to data processing resources via a controller that can receive and react to advanced backpressure messages. These advanced backpressure messages are used to rate limit the data packets based one or more of the following factors: traffic class, traffic priority, destination port. The controller can also generate a traffic preference message to an upstream source of the data packets to inform the upstream unit of the most appropriate type of data that should be transmitted downstream at that time, thereby improving the likelihood of the transmitted data being processed in a proper and timely manner by the downstream data processing resources. Embodiments of the invention can improve the performance of a communications system during periods of congestion by ensuring that high-priority traffic has precedence over traffic of lower priority while maximizing utilization of the ingress data path bandwidth.

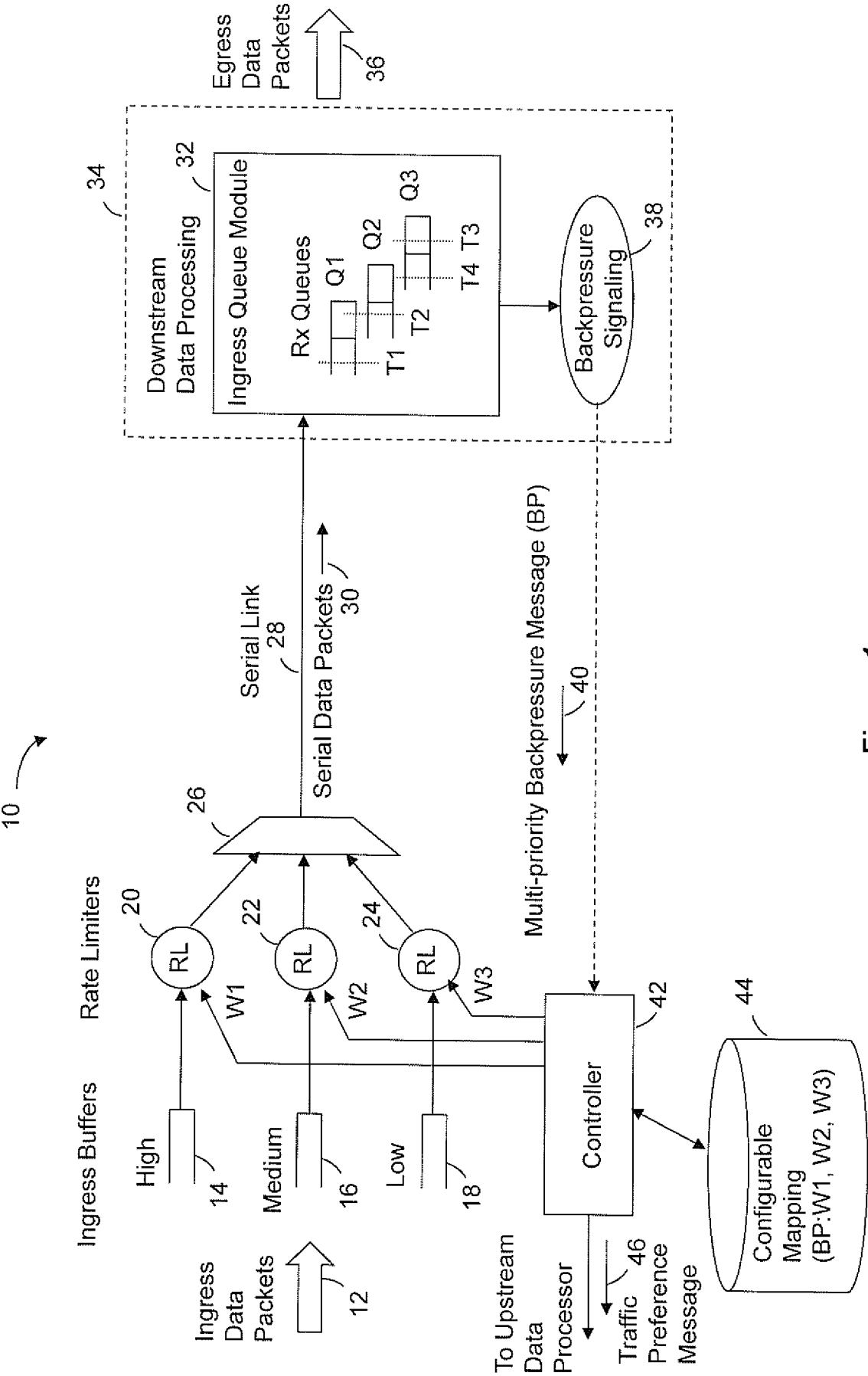


Figure 1

**PATENT APPLICATION**

|  |
|--|
| <b>DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION</b><br><b>ATTORNEY DOCKET NO. ALC 3328-CON</b> <b>CUSTOMER NUMBER: 30868</b> |
|--|

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM

the specification of which is attached hereto unless the following box is checked:

( ) was filed on \_\_\_\_\_ as US Application Serial No. or PCT International Application Number \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

**Foreign Application(s) and/or Claim of Foreign Priority**

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

| COUNTRY | APPLICATION NUMBER | DATE FILED | PRIORITY CLAIMED UNDER<br>35 U.S.C. 119 |     |
|---------|--------------------|------------|---|-----|
|         |                    |            | YES:                                    | NO: |
|         |                    |            | YES:                                    | NO: |

**Provisional Application**

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

| APPLICATION SERIAL NUMBER | FILING DATE |
|---------------------------|-------------|
|                           |             |
|                           |             |

**U.S. Priority Claim**

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

| APPLICATION SERIAL NUMBER | FILING DATE | STATUS (patented/pending/abandoned) |
|---------------------------|-------------|-------------------------------------|
|                           |             |                                     |
|                           |             |                                     |
|                           |             |                                     |

## PATENT APPLICATION

**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**  
**ATTORNEY DOCKET NO. ALC 3328-CON CUSTOMER NUMBER: 30868**

**Power of Attorney:**

As a named inventor, I hereby appoint the attorney(s) and/or agent(s) under Customer Number 30868 to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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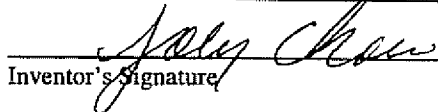
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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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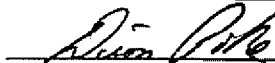
Inventor's Signature

Date

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Inventor's Signature

Date

Full Name of Inventor: Dion PikeCitizenship: CanadianResidence: 14 Morningsun Crescent, Stittsville, Ontario, K2S 1J6, CanadaPost Office Address: SameOct 18, 2007

Inventor's Signature

Date

PTO/SB/122 (11-08)

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| Application Number     | 11/907,871       |
| Filing Date            | October 18, 2007 |
| First Named Inventor   | John Madsen      |
| Art Unit               | 2616             |
| Examiner Name          | Unknown          |
| Attorney Docket Number | ALC 3328         |

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Name Terry W. Kramer

Date April 17, 2009

Telephone  
703 519-9801

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|  |  |                 |               |                             |
|--|--|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                     |  |                 |               |                             |
| <b>Filing Date:</b>                            |  |                 |               |                             |
| <b>Title of Invention:</b>                     | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>    | John Madsen  |                 |               |                             |
| <b>Filer:</b>                                  | Terry Wayne Kramer/Tara Jeffers                              |                 |               |                             |
| <b>Attorney Docket Number:</b>                 | ALC 3328-CON   |                 |               |                             |
| Filed as Large Entity                          |  |                 |               |                             |
| <b>Utility under 35 USC 111(a) Filing Fees</b> |  |                 |               |                             |
| <b>Description</b>                             | <b>Fee Code</b>  | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                           |  |                 |               |                             |
| Utility application filing                     | 1011   | 1               | 380           | 380                         |
| Utility Search Fee                             | 1111   | 1               | 620           | 620                         |
| Utility Examination Fee                        | 1311   | 1               | 250           | 250                         |
| <b>Pages:</b>                                  |  |                 |               |                             |
| <b>Claims:</b>                                 |  |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                   |  |                 |               |                             |
| <b>Petition:</b>                               |  |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>        |  |                 |               |                             |

| Description                       | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|-----------------------------------|----------|----------|--------|----------------------|
| Post-Allowance-and-Post-Issuance: |          |          |        |                      |
| Extension-of-Time:                |          |          |        |                      |
| Miscellaneous:                    |          |          |        |                      |
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| <b>EFS ID:</b>                              | 11942524   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/Tara Jeffers                              |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 27-JAN-2012  |
| <b>Filing Date:</b>                         |  |
| <b>Time Stamp:</b>                          | 17:09:10   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

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|                              | Document Description                                |                       | Start   | End              |                  |
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|                              | Specification                                       |                       | 7   | 15               |                  |
|                              | Claims  |                       | 16  | 19               |                  |
|                              | Abstract  |                       | 20  | 20               |                  |
|                              | Drawings-only black and white line drawings         |                       | 21  | 21               |                  |
|                              | Oath or Declaration filed                           |                       | 22  | 24               |                  |
| Warnings:                    |   |                       |   |                  |                  |
| Information:                 |   |                       |   |                  |                  |
| 2                            | Fee Worksheet (SB06)                                | fee-info.pdf          | 32828<br><div>ad310b054d5284e6a761551cb1f9b76a629d7eb4</div>  | no               | 2                |
| Warnings:                    |   |                       |   |                  |                  |
| Information:                 |   |                       |   |                  |                  |
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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|                      |   |                              |
|----------------------|---|------------------------------|
| In re Application of | : | John Madsen et al.           |
|                      | : |                              |
| For                  | : | INGRESS TRAFFIC CONTROL IN A |
|                      | : | DATA COMMUNICATIONS SYSTEM   |
|                      | : |                              |
| Serial No.:          | : | 13/360,310                   |
|                      | : |                              |
| Filed                | : | January 27, 2012             |
|                      | : |                              |
| Art Unit             | : | TBD                          |
|                      | : |                              |
| Examiner             | : | TBD                          |
|                      | : |                              |
| Att. Docket          | : | ALC 3328-CON                 |
|                      | : |                              |
| Confirmation No.     | : | 1373                         |

**PRELIMINARY AMENDMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Prior to the initial examination, please enter amendments to the specification and the claims for the above-identified application as set forth below:

**SPECIFICATION AMENDMENTS** begin on page 2 of this paper.

**CLAIM AMENDMENTS** begin on page 3 of this paper.

**REMARKS/ARGUMENTS** begin on page 10 of this paper.

Application No: 13/360,310  
Kramer & Amado's Docket No: ALC 3328-CON

**SPECIFICATION AMENDMENTS**

Please add the following paragraph between the title and the first line of text as follows:

This application is a continuation of U.S. Ser. No. 11/907,871, filed October 18, 2007.



Application No: 13/360,310  
Kramer & Amado's Docket No: ALC 3328-CON

### CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

#### Listing of Claims

1-16. (Canceled)

17. (New) A method performed by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to the flow of data packets.

18. (New) The method of claim 17, wherein:

the step of determining at least one weighting factor comprises determining, based on the backpressure signal, a set of weighting factors; and

the step of adjusting the amount of rate limiting comprises:

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adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

19. (New) The method of claim 17, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

20. (New) The method of claim 19, wherein the step of determining at least one weighting factor comprises:

reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

21. (New) The method of claim 17, wherein the backpressure signal is received from a downstream data processing unit.

22. (New) The method of claim 17, further comprising generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for

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Kramer & Amado's Docket No: ALC 3328-CON

transmission over the serial link in accordance with the determined at least one weighting factor.

23. (New) The method of claim 17, wherein the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

24. (New) A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system comprising:

a first rate limiter configured to provide an amount of rate limiting to a first portion of the flow of ingress data packets, the amount of rate limiting being dependent upon a first weighting factor; and

a controller configured to:

receive a backpressure signal,

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and

adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on the determined first weighting factor value.

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Kramer & Amado's Docket No: ALC 3328-CON

25. (New) The traffic flow control system of claim 24, further comprising:

a second rate limiter configured to provide an amount of rate limiting to a second portion of the flow of ingress data packets that is different from the first portion of the flow of ingress data packets, the amount of rate limiting of the second rate limiter being dependent upon a second weighting factor

wherein the controller is further configured to:

determine a second weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and

adjust an amount of rate limiting applied to the second portion of the flow of ingress data packets by adjusting the second weighting factor used by the second rate limiter based on the determined second weighting factor value.

26. (New) The traffic flow control system of claim 24, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

27. (New) The traffic flow control system of claim 26, wherein, in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values.

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Kramer & Amado's Docket No: ALC 3328-CON

28. (New) The traffic flow control system of claim 24, wherein the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value.

29. (New) The traffic flow control system of claim 24, wherein the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

30. (New) A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising:

instructions for receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

instructions for determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

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Kramer & Amado's Docket No: ALC 3328-CON

instructions for adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to the flow of data packets.

31. (New) The non-transitory machine-readable storage medium of claim 30, wherein:

the instructions for determining at least one weighting factor comprise instructions for determining, based on the backpressure signal, a set of weighting factors; and

the instructions for adjusting the amount of rate limiting comprise:

instructions for adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

instructions for adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

32. (New) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

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33. (New) The non-transitory machine-readable storage medium of claim 32, wherein the instructions for determining at least one weighting factor comprise:

instructions for reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

34. (New) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is received from a downstream data processing unit.

35. (New) The non-transitory machine-readable storage medium of claim 30, further comprising instructions for generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

36. (New) The non-transitory machine-readable storage medium of claim 30, wherein the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

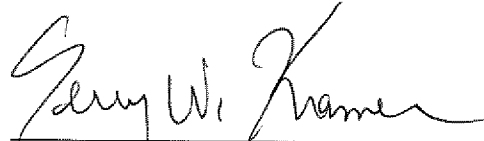
Application No: 13/360,310  
Kramer & Amado's Docket No: ALC 3328-CON

**REMARKS/ARGUMENTS**

While we believe that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner telephone the undersigned attorney in order to expeditiously resolve any outstanding issues.

In the event that the fees submitted prove to be insufficient in connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account.

Respectfully submitted,  
**KRAMER & AMADO, P.C.**

A handwritten signature in black ink, appearing to read "Terry W. Kramer", written over a horizontal line.

Terry W. Kramer  
Registration No.: 41,541

Date: February 1, 2012

KRAMER & AMADO, P.C.  
1725 Duke Street, Suite 240  
Alexandria, VA 22314  
Phone: 703-519-9801  
Fax: 703-519-9802



**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 12005354   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/Tara Jeffers                              |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 06-FEB-2012  |
| <b>Filing Date:</b>                         |  |
| <b>Time Stamp:</b>                          | 13:58:44   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

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**File Listing:**

| Document Number | Document Description  | File Name                       | File Size(Bytes)/<br>Message Digest                | Multi Part /.zip | Pages (if appl.) |
|-----------------|-----------------------|---------------------------------|--|------------------|------------------|
| 1               | Preliminary Amendment | ALC3328_con_prelimamendment.pdf | 212170<br>6e4c9d25c4941971312dde3f3e8a6d559a47963c | no               | 10               |

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (07-06)

Approved for use through 1/31/2007. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875  |   |                                  |                                    |               | Application or Docket Number<br><b>13/360,310</b> |  | Filing Date<br><b>01/27/2012</b> |                            | <input type="checkbox"/> To be Mailed |  |
|--|---|----------------------------------|------------------------------------|---------------|---|--|----------------------------------|----------------------------|---------------------------------------|--|
| <b>APPLICATION AS FILED – PART I</b>   |   |                                  |                                    |               |   |  |                                  |                            |                                       |  |
| (Column 1)   |   |                                  | (Column 2)                         |               |   | SMALL ENTITY <input type="checkbox"/> OR |                                  | OTHER THAN<br>SMALL ENTITY |                                       |  |
| FOR  | NUMBER FILED  | NUMBER EXTRA                     | RATE (\$)                          | FEE (\$)      | OR  | RATE (\$)                                | FEE (\$)                         |                            |                                       |  |
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))  | N/A   | N/A                              | N/A                                |               |   | N/A                                      |                                  |                            |                                       |  |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (l), or (m))   | N/A   | N/A                              | N/A                                |               |   | N/A                                      |                                  |                            |                                       |  |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  | N/A   | N/A                              | N/A                                |               |   | N/A                                      |                                  |                            |                                       |  |
| TOTAL CLAIMS<br>(37 CFR 1.16(j))   | minus 20 =  | *                                | X \$                               | =             | OR  | X \$                                     | =                                |                            |                                       |  |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))   | minus 3 =   | *                                | X \$                               | =             |   | X \$                                     | =                                |                            |                                       |  |
| <input type="checkbox"/> APPLICATION SIZE FEE<br>(37 CFR 1.16(s))  | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                  |                                    |               |   |  |                                  |                            |                                       |  |
| <input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))   |   |                                  |                                    |               |   |  |                                  |                            |                                       |  |
| * If the difference in column 1 is less than zero, enter "0" in column 2.  |   |                                  | TOTAL                              |               |   | TOTAL                                    |                                  |                            |                                       |  |
| <b>APPLICATION AS AMENDED – PART II</b>  |   |                                  |                                    |               |   |  |                                  |                            |                                       |  |
| (Column 1)   |   |                                  | (Column 2)                         |               |   | SMALL ENTITY OR                          |                                  | OTHER THAN<br>SMALL ENTITY |                                       |  |
| AMENDMENT  | 02/06/2012  | CLAIMS REMAINING AFTER AMENDMENT | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE (\$)   | ADDITIONAL FEE (\$)                      | OR                               | RATE (\$)                  | ADDITIONAL FEE (\$)                   |  |
|  | Total (37 CFR 1.16(i))  | * 20                             | Minus                              | ** 20         | =   | 0  | OR                               | X \$60=                    | 0                                     |  |
|  | Independent (37 CFR 1.16(h))  | * 3                              | Minus                              | ***3          | =   | 0  | OR                               | X \$250=                   | 0                                     |  |
| <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))   |   |                                  |                                    |               |   |  |                                  |                            |                                       |  |
| <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))   |   |                                  |                                    |               |   |  | OR                               |                            |                                       |  |
|  |   |                                  |                                    |               | TOTAL ADD'L FEE                                   |  | OR                               | TOTAL ADD'L FEE            | 0                                     |  |
| (Column 1)   |   |                                  | (Column 2)                         |               |   | SMALL ENTITY OR                          |                                  | OTHER THAN<br>SMALL ENTITY |                                       |  |
| AMENDMENT  |   | CLAIMS REMAINING AFTER AMENDMENT | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE (\$)   | ADDITIONAL FEE (\$)                      | OR                               | RATE (\$)                  | ADDITIONAL FEE (\$)                   |  |
|  | Total (37 CFR 1.16(i))  | *                                | Minus                              | **            | =   |  | OR                               | X \$                       | =                                     |  |
|  | Independent (37 CFR 1.16(h))  | *                                | Minus                              | ***           | =   |  | OR                               | X \$                       | =                                     |  |
| <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))   |   |                                  |                                    |               |   |  |                                  |                            |                                       |  |
| <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))   |   |                                  |                                    |               |   |  | OR                               |                            |                                       |  |
|  |   |                                  |                                    |               | TOTAL ADD'L FEE                                   |  | OR                               | TOTAL ADD'L FEE            |                                       |  |
| <p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p> |   |                                  |                                    |               |   |  |                                  |                            |                                       |  |

Legal Instrument Examiner:  
/STEVEN WHIBLEY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b>  |   |                                  |          |                                    |               | Application or Docket Number<br>13/360,310 |                    |                               |                    |                    |
|---|---|----------------------------------|----------|------------------------------------|---------------|--|--------------------|-------------------------------|--------------------|--------------------|
| Substitute for Form PTO-875   |   |                                  |          |                                    |               |  |                    |                               |                    |                    |
| <b>APPLICATION AS FILED - PART I</b>  |   |                                  |          |                                    |               |  |                    |                               |                    |                    |
| (Column 1)  |   | (Column 2)                       |          | SMALL ENTITY                       |               | OR<br>OTHER THAN SMALL ENTITY              |                    |                               |                    |                    |
| FOR   | NUMBER FILED  | NUMBER EXTRA                     | RATE(\$) | FEE(\$)                            |               | RATE(\$)                                   | FEE(\$)            |                               |                    |                    |
| BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))  | N/A   | N/A                              | N/A      |                                    |               | N/A  | 380                |                               |                    |                    |
| SEARCH FEE<br>(37 CFR 1.16(k), (l), or (m))   | N/A   | N/A                              | N/A      |                                    |               | N/A  | 620                |                               |                    |                    |
| EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  | N/A   | N/A                              | N/A      |                                    |               | N/A  | 250                |                               |                    |                    |
| TOTAL CLAIMS<br>(37 CFR 1.16(j))  | 20  | minus 20 = *                     |          |                                    | OR            | x 60 =                                     | 0.00               |                               |                    |                    |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))  | 3   | minus 3 = *                      |          |                                    |               | x 250 =                                    | 0.00               |                               |                    |                    |
| APPLICATION SIZE FEE<br>(37 CFR 1.16(s))  | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                  |          |                                    |               |  | 0.00               |                               |                    |                    |
| MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))   |   |                                  |          |                                    |               |  | 0.00               |                               |                    |                    |
|   |   |                                  | TOTAL    |                                    |               | TOTAL                                      | 1250               |                               |                    |                    |
| * If the difference in column 1 is less than zero, enter "0" in column 2.   |   |                                  |          |                                    |               |  |                    |                               |                    |                    |
| <b>APPLICATION AS AMENDED - PART II</b>   |   |                                  |          |                                    |               |  |                    |                               |                    |                    |
| (Column 1)  |   | (Column 2)                       |          | (Column 3)                         |               | SMALL ENTITY                               |                    | OR<br>OTHER THAN SMALL ENTITY |                    |                    |
| AMENDMENT A   |   | CLAIMS REMAINING AFTER AMENDMENT |          | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE(\$)                                   | ADDITIONAL FEE(\$) |                               | RATE(\$)           | ADDITIONAL FEE(\$) |
|   | Total<br>(37 CFR 1.16(i))   | *                                | Minus    | **                                 | =             | x  | =                  | OR                            | x                  | =                  |
|   | Independent<br>(37 CFR 1.16(h))   | *                                | Minus    | ***                                | =             | x  | =                  | OR                            | x                  | =                  |
|   | Application Size Fee (37 CFR 1.16(s))   |                                  |          |                                    |               |  |                    | OR                            |                    |                    |
|   | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))   |                                  |          |                                    |               |  |                    | OR                            |                    |                    |
|   |   |                                  |          |                                    |               | TOTAL<br>ADD'L FEE                         |                    | OR                            | TOTAL<br>ADD'L FEE |                    |
| AMENDMENT B   |   | CLAIMS REMAINING AFTER AMENDMENT |          | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE(\$)                                   | ADDITIONAL FEE(\$) |                               | RATE(\$)           | ADDITIONAL FEE(\$) |
|   | Total<br>(37 CFR 1.16(i))   | *                                | Minus    | **                                 | =             | x  | =                  | OR                            | x                  | =                  |
|   | Independent<br>(37 CFR 1.16(h))   | *                                | Minus    | ***                                | =             | x  | =                  | OR                            | x                  | =                  |
|   | Application Size Fee (37 CFR 1.16(s))   |                                  |          |                                    |               |  |                    | OR                            |                    |                    |
|   | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))   |                                  |          |                                    |               |  |                    | OR                            |                    |                    |
|   |   |                                  |          |                                    |               | TOTAL<br>ADD'L FEE                         |                    | OR                            | TOTAL<br>ADD'L FEE |                    |
| <p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.</p> |   |                                  |          |                                    |               |  |                    |                               |                    |                    |



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| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY. DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|-----------------|------------|------------|
| 13/360,310            | 01/27/2012               | 2472            | 1250          | ALC 3328-CON    | 20         | 3          |

CONFIRMATION NO. 1373

## FILING RECEIPT



\*OC000000052452319\*

76614

Terry W. Kramer, Esq.  
 Kramer & Amado, P.C.  
 1725 Duke Street, Suite 240  
 Alexandria, VA 22314

Date Mailed: 02/14/2012

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Applicant(s)**

John Madsen, Ottawa, CANADA;  
 Joey Chow, Nepean, CANADA;  
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**Assignment For Published Patent Application**

Alcatel-Lucent, Paris, FRANCE

**Power of Attorney:** The patent practitioners associated with Customer Number 30868

**Domestic Priority data as claimed by applicant**

This application is a CON of 11/907,871 10/18/2007

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)

**If Required, Foreign Filing License Granted:** 02/07/2012

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/360,310**

**Projected Publication Date:** 05/24/2012

**Non-Publication Request:** No

**Early Publication Request:** No

**Title**

INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM

**Preliminary Class**

370

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

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| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 13/360,310         | 01/27/2012            | John Madsen           | ALC 3328-CON           |

CONFIRMATION NO. 1373

## PUBLICATION NOTICE



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76614  
 Terry W. Kramer, Esq.  
 Kramer & Amado, P.C.  
 1725 Duke Street, Suite 240  
 Alexandria, VA 22314

**Title:**INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM

**Publication No.**US-2012-0127862-A1

**Publication Date:**05/24/2012

## NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at [www.uspto.gov](http://www.uspto.gov). The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

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| 76614   | 7590 | 03/28/2014 |
| Terry W. Kramer, Esq.<br>Kramer & Amado, P.C.<br>330 John Carlyle Street<br>3rd Floor<br>Alexandria, VA 22314 |      |            |

|                    |  |
|--------------------|--|
| EXAMINER           |  |
| CHOUDHRY, SAMINA F |  |

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 2462     |              |

|                   |               |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
| 03/28/2014        | ELECTRONIC    |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mail@krameramado.com

**Office Action Summary****Application No.**  
13/360,310**Applicant(s)**  
MADSEN ET AL.**Examiner**  
SAMINA CHOUDHRY**Art Unit**  
2462**AIA (First Inventor to File)  
Status**  
No**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02/06/2012.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5) ☒ Claim(s) 1-36 is/are pending in the application.  
 5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-36 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 01/27/2012 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a) ☐ All b) ☐ Some\*\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 3) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 4) ☐ Other: \_\_\_\_\_.

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## DETAILED ACTION

### *Double Patenting*

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 17-23 and 30-36 are rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claims 1-19 of U.S. patent 8,130,649.

Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

Regarding claim 17, U.S. patent 8,130,649 discloses:

A method performed by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link (claim 1; lines 1-3; claim 8; lines 1-3), the method comprising:

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receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion (claim 1; lines 4-10);

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal (claim 1; lines 11-15; claim 8; lines 11-15); and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to the flow of data packets (claim 1; lines 16-19; claim 8; lines 16-19).

Regarding claim 18, U.S. patent 8,130,649 discloses:

the step of determining at least one weighting factor comprises determining, based on the backpressure signal, a set of weighting factors (claim 1; lines 11-15); and the step of adjusting the amount of rate limiting comprises: adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors (claim 1; lines 16-19).

Regarding claim 19, U.S. patent 8,130,649 discloses:

the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (claim 4; lines 1-4).

Regarding claim 20, U.S. patent 8,130,649 discloses:

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the step of determining at least one weighting factor comprises:  
reading the at least one weighting factor from a mapping of various fill level states for  
the at least one packet queue to various weighting factors (claim 5; lines 1-6).

Regarding claim 21, U.S. patent 8,130,649 discloses:  
wherein the backpressure signal is received from a downstream data processing unit  
(claim 1; lines 4-5).

Regarding claim 22, U.S. patent 8,130,649 discloses:  
generating a traffic preference message for transmission to a source of the flow of data  
packets, the traffic preference message indicating a type of data packet preferred for  
transmission over the serial link in accordance with the determined at least one  
weighting factor (claim 5; lines 1-5).

Regarding claim 23, U.S. patent 8,130,649 discloses:  
the contents of the backpressure message indicates that at least one fill-level threshold  
for a packet queue has been crossed (claim 16; lines 1-4).

Regarding claim 30, U.S. patent 8,130,649 discloses:  
instructions for receiving, by a controller of the traffic flow control system, a  
backpressure signal, wherein the backpressure signal indicates a period of congestion  
(claim 1; lines 4-10);

instructions for determining, by the controller of the traffic flow control  
system, at least one weighting factor to be applied to the flow of data packets based on  
the received backpressure signal (claim 1; lines 11-15; claim 8; lines 11-15); and

instructions for adjusting an amount of rate limiting applied to at least a  
portion of the flow of data packets based on the determined at least one weighting

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factor to be applied to the flow of data packets (claim 1; lines 16-19; claim 8; lines 16-19).

Although the conflicting claims are not identical, they are not patentably distinct from each other because it is obvious to one of ordinary skilled in the art to implement the method of US 8,130,649 by using code/software/instructions stored in a non-transitory computer readable medium.

Regarding claim 31, U.S. patent 8,130,649 discloses:  
the instructions for determining at least one weighting factor comprises determining, based on the backpressure signal, a set of weighting factors (claim 1; lines 11-15); and the step of adjusting the amount of rate limiting comprises:  
adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and  
adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors (claim 1; lines 16-19).

Regarding claim 32, U.S. patent 8,130,649 discloses:  
the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (claim 4; lines 1-4).

Regarding claim 33, U.S. patent 8,130,649 discloses:  
instructions for reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors (claim 5; lines 1-6).

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Regarding claim 34, U.S. patent 8,130,649 discloses:

wherein the backpressure signal is received from a downstream data processing unit (claim 1; lines 4-5).

Regarding claim 35, U.S. patent 8,130,649 discloses:

instructions for generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor (claim 5; lines 1-5).

Regarding claim 36, U.S. patent 8,130,649 discloses:

the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (claim 16; lines 1-4).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 17-23, and 30-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al. (US 6952424) in view of Anderson et al. (US 2006/0248242).

Regarding claims 17 and 30, Bass discloses a method performed by a traffic flow control system /a non-transitory machine readable storage encoded with instructions by a traffic flow control system (Col. 2; lines 16-27) for performing flow control on a flow of data packets for transmission over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle);

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal (Col. 7; lines 46-57; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle); and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to the flow of data packets (Col. 7; lines 46-50; claim 2 and 6; providing a back\_pressure indicator



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signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue).

Bass does not explicitly disclose that the backpressure signal indicates a period of congestion.

In an analogous art, Anderson discloses that the backpressure signal indicates a period of congestion (§ 22). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to improve network performance by reducing network congestion.

Regarding claims 18 and 31, Bass does not explicitly disclose:

the step of determining at least one weighting factor comprises determining, based on the backpressure signal, a set of weighting factors (Col. 9; lines 25-39).

Bass does not explicitly disclose that the step of adjusting the amount of rate limiting comprises:

adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and  
adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

In an analogous art, Anderson discloses that the step of adjusting the amount of rate limiting comprises:

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adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors (¶ 22; Ingress backpressure mechanism uses packet or cell counters to track the number of packets or cells used on an ingress port basis. Ingress mechanism includes registers for a set of 8 individually configurable thresholds and registers used to specify which of the 8 thresholds are to be used for every ingress port in the system. The set of thresholds include a limit threshold, a discard limit threshold and a reset limit threshold 316). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to dynamically manage different queues based on their fill level.

Regarding claims 19 and 32, Bass discloses that the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (Abstract and Col. 7; lines 46-50; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold. This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle).

Regarding claims 20 and 33, Bass does not explicitly disclose reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

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In an analogous art, Anderson discloses reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors (§ 22; The set of thresholds include a limit threshold, a discard limit threshold and a reset limit threshold). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to dynamically manage different queues based on their fill level.

Regarding claims 21 and 34, Bass does not explicitly disclose that the backpressure signal is received from a downstream data processing unit.

In an analogous art, Anderson discloses that the backpressure signal is received from a downstream data processing unit (§ 21; ingress backpressure mechanism). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to improve the flow control based on the capacity utilization level of the receiver.

Regarding claims 22 and 35, Bass discloses generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor (Col. 8; lines 41-60; Each of the WFQ calendars is associated with a pair of ports; thus, WFQ Port 0 is associated with a higher priority port 0 and a lower priority port 0. If the target port queue's threshold has been exceeded, no further action is taken by that WFQ calendar during the scheduler.sub.-- tick. (This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle.) If

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the target port queue's threshold has not been exceeded, the slot that is indicated by the current pointer is then examined. If the slot is found to be empty, then the current pointer may advance to the next non-empty slot to find a flow queue WFQ candidate. If all slots are found to be empty, the current pointer is unchanged and no candidate is found. If the slot is found to be non-empty within this one calendar, then the flow queue address is stored in the slot is the WFQ candidate for this port. Each of the WFQ calendars will similarly be able to find a candidate for its associated target port queue.

Regarding claims 23 and 36, Bass discloses that the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (Abstract; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold).

5. Claims 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al. (US 6952424) in view of Khotimsky et al. (US 6788686).

Regarding claim 24, Bass discloses a traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the traffic flow control system comprising:  
a first rate limiter configured to provide an amount of rate limiting to a flow queue ingress data packets, the amount of rate limiting being dependent upon a first

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weighting factor (Col. 3; lines 32-36; Col. 6; line 63... Col. 7, line 7); and  
a controller configured to (claim 6; controller):  
receive a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the  
transmitter preventing frames from being sent out that the system cannot handle)  
determine a first weighting factor value to be applied to the flow of ingress data  
packets based on the received backpressure signal (Col. 8; lines 45-50; claim 2;  
providing a back pressure indicator signal to said weighted fair calendar when an  
output queue associated with said weighted fair calendar is not empty, preventing that  
output queue from being selected during the time cycle), and  
adjust an amount of rate limiting applied to the first portion of the flow of ingress data  
packets by adjusting the first weighting factor used by the first rate limiter based on the  
determined first weighting factor value (Col. 8; lines 40-50; claim 4; Col. 9; lines 48-57).

Bass does not explicitly disclose that the flow queue is a first portion of the  
flow.

In an analogous art, Khotimsky discloses that the flow queue is a first portion  
of the flow (Col. 4; lines 11-25; flow is split into different portions and the flow is  
controlled for each portion). It would have been obvious to one of ordinary skill in the  
art at the time of invention was made to modify Bass's method by adding the  
limitation of Khotimsky in order to dynamically manage different portions of flows  
based on their corresponding egress buffer fill level.

Regarding claim 25, Bass discloses a traffic flow control system for controlling  
a flow of ingress data packets to be transmitted over a link (Col. 1; lines 65-67; The  
present invention includes an improved system and method for scheduling the

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distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the traffic flow control system comprising:

a second rate limiter configured to provide an amount of rate limiting to a flow queue ingress data packets, the amount of rate limiting being dependent upon a first weighting factor (Col. 3; lines 32-36; Col. 6; line 63... Col. 7, line 7); and  
a controller configured to (claim 6; controller) :

receive a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle)  
determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal (Col. 8; lines 45-50; claim 2;  
providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle), and  
adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on the determined first weighting factor value (Col. 8; lines 40-50; claim 4; Col. 9; lines 48-57).

Bass does not explicitly disclose that the flow queue is a second portion of the flow.

In an analogous art, Khotimsky discloses that the flow queue is a second portion of the flow (Col. 4; lines 11-25; flow is split into different portions and the flow is controlled for each portion). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding

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the limitation of Khotimsky in order to dynamically manage different portions of flows based on their corresponding egress buffer fill level.

Regarding claim 26, Bass discloses that the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (Abstract and Col. 7; lines 46-50; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold. This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle).

Regarding claim 27, Bass further discloses that in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values (Col. 7; lines 46-50; claim 2 and 6; providing a back\_pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue)

Regarding claim 28, Bass further discloses that the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets (Col. 9; lines 11-14), the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value (Col. 9; lines 11-24).

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Regarding claims 29, Bass discloses that the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (Abstract; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold).

### *Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMINA CHOUDHRY whose telephone number is (571)270-7102. The examiner can normally be reached on Monday to Thursday (7:30 a.m. to 5.00p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yemane Mesfin can be reached on (571)272-3927. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the



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automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAMINA CHOUDHRY/

Examiner, Art Unit 2462

|                                   |                                       |  |   |             |
|-----------------------------------|---------------------------------------|--|---|-------------|
| <b>Notice of References Cited</b> | Application/Control No.<br>13/360,310 |  | Applicant(s)/Patent Under<br>Reexamination<br>MADSEN ET AL. |             |
|                                   | Examiner<br>SAMINA CHOUDHRY           |  | Art Unit<br>2462  | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name             | Classification |
|---|---|--|-----------------|------------------|----------------|
| * | A | US-6,788,686 B1                                  | 09-2004         | Khotimsky et al. | 370/394        |
| * | B | US-6,952,424 B1                                  | 10-2005         | Bass et al.      | 370/412        |
| * | C | US-2006/0248242 A1                               | 11-2006         | Andersen et al.  | 710/052        |
|   | D | US-  |                 |                  |                |
|   | E | US-  |                 |                  |                |
|   | F | US-  |                 |                  |                |
|   | G | US-  |                 |                  |                |
|   | H | US-  |                 |                  |                |
|   | I | US-  |                 |                  |                |
|   | J | US-  |                 |                  |                |
|   | K | US-  |                 |                  |                |
|   | L | US-  |                 |                  |                |
|   | M | US-  |                 |                  |                |

**FOREIGN PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | Classification |
|---|---|--|-----------------|---------|------|----------------|
|   | N |  |                 |         |      |                |
|   | O |  |                 |         |      |                |
|   | P |  |                 |         |      |                |
|   | Q |  |                 |         |      |                |
|   | R |  |                 |         |      |                |
|   | S |  |                 |         |      |                |
|   | T |  |                 |         |      |                |

**NON-PATENT DOCUMENTS**

| * |   | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
|   | U |   |
|   | V |   |
|   | W |   |
|   | X |   |

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits  | Search Query  | DBs  | Default Operator | Plurals | Time Stamp          |
|-------|-------|---|--|------------------|---------|---------------------|
| S1    | 8990  | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3)                              | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:55 |
| S2    | 874   | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3) same (flow near2 control\$3) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:55 |
| S3    | 411   | (back pressure or paus\$3 or halt\$3 or stop\$4) with (congestion or congest\$3) with (flow near2 control\$3) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:56 |
| S4    | 88734 | (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                                    | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:56 |
| S5    | 3     | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                             | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:56 |
| S6    | 3     | S3 and ((back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight))                           | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:57 |
| S7    | 1     | "13360310"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>17:58 |
| S8    | 2     | "6570848".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>18:03 |
| S9    | 4     | "6031821".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>18:03 |
| S10   | 6     | S8 or S9  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/22<br>18:03 |

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|-----|----|---|--|-----|----|---------------------|
| S11 | 2  | S10 and (weigh\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S12 | 4  | S3 and (back pressure or paus\$3<br>or halt\$3 or stop\$4) with<br>(weigh\$3 or weight or<br>proportion)                          | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S13 | 1  | S12 not S6  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S14 | 10 | S3 and (back pressure or paus\$3<br>or halt\$3 or stop\$4) with<br>(weigh\$3 or weight or proportion<br>or percentage or percent) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:05 |
| S15 | 2  | "6170022".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:20 |
| S17 | 1  | S15 and (percent or percentage<br>or pause)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:21 |
| S18 | 1  | S15 and (percent\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:21 |
| S19 | 2  | "6324165".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S20 | 75 | "6788686"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S21 | 3  | "6788686".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S22 | 5  | S19 or S21  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S23 | 2  | "6324165".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:29 |

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|-----|---|--|--|-----|----|---------------------|
| S24 | 2 | S22 and (backpressure or back pressure or paus\$3 or halt\$3 or stop\$4)                   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:29 |
| S25 | 2 | S24 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:30 |
| S26 | 3 | "20130132573"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:58 |
| S27 | 1 | S26 and (embed\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:58 |
| S28 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S29 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S30 | 5 | S28 or S29   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S31 | 3 | S30 and (flow)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S32 | 3 | S30 and (flow or (backpressure or back pressure))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:05 |
| S33 | 3 | S30 and (flow or (backpressure or back pressure) or (weigh\$3 or weight))                  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:20 |
| S34 | 1 | S30 and ( (backpressure or back pressure or paus\$3 or halt\$3) with (weigh\$3 or weight)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:43 |
| S35 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |

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|-----|--------|---|--|-----|----|---------------------|
| S36 | 1      | S35 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |
| S37 | 1      | S35 and ((weight or weigh\$3)<br>with (back pressure or halt or<br>paus\$3 or stop\$4))                       | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |
| S38 | 1      | S35 and ((weight or weigh\$3)<br>and (back pressure or halt or<br>paus\$3 or stop\$4))                        | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:35 |
| S39 | 2      | "6967923".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:37 |
| S41 | 1      | S39 and (weight\$3 or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:38 |
| S42 | 2      | S30 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:41 |
| S43 | 1      | S30 and ((weight or weigh\$3)<br>with (paus\$3 or halt\$3 or stop\$4<br>or backpressure or back<br>pressure)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:43 |
| S44 | 1      | S30 and ((weight or weigh\$3)<br>same (paus\$3 or halt\$3 or stop\$4<br>or backpressure or back<br>pressure)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:44 |
| S45 | 301379 | ((weight or weigh\$3) same<br>(paus\$3 or halt\$3 or stop\$4 or<br>backpressure or back pressure))            | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:46 |
| S46 | 89069  | ((weight or weigh\$3)with (paus\$3<br>or halt\$3 or stop\$4 or<br>backpressure or back pressure))             | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:47 |
| S47 | 4471   | S46 and (flow near2 control)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:47 |
| S48 | 1571   | S47 and ((adjust\$3 or chang\$3 or<br>modif\$5) with ( weight or<br>weigh\$3))                                | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:48 |

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|-----|-------|---|--|-----|----|---------------------|
| S49 | 42    | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure))                                   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S50 | 48    | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 ))                       | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S51 | 434   | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 or halt\$3 or stop\$4 )) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S52 | 1     | "13360310"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:50 |
| S53 | 3     | S50 and (network)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:52 |
| S54 | 65    | S51 and (network)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:52 |
| S55 | 20    | S51 and (network and (packet or frame))   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:53 |
| S56 | 21498 | (network and (weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:55 |
| S57 | 441   | (network and (weight or weigh\$3) with (paus\$3 or backpressure or back pressure))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:56 |
| S58 | 24    | S57 and (network with (flow near2 control\$4))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:57 |
| S59 | 153   | S57 and ( (flow near2 control\$4))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:57 |
| S60 | 3     | "20060187945"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:38 |

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|-----|----|--|--|-----|----|---------------------|
| S61 | 2  | S60 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:38 |
| S62 | 2  | "20040257997"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:41 |
| S63 | 2  | S62 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:41 |
| S64 | 1  | S62 and ((weight or weigh\$3)<br>with (backpressure or back<br>pressure))                      | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:42 |
| S65 | 14 | "7701957".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:44 |
| S66 | 2  | S65 and (backpressure or back<br>pressure)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:45 |
| S67 | 2  | "6952424".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:46 |
| S68 | 1  | S67 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:46 |
| S69 | 1  | S67 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure)                    | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:47 |
| S70 | 1  | S67 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure or halt or stop\$4) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:48 |
| S73 | 1  | S67 and (back)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:52 |
| S74 | 1  | S67 and (flow)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:17 |



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| S75 | 1 | S67 and (flow and back)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:23 |
| S76 | 1 | S67 and (paus\$3 or stop\$4 or halt\$3 or back)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:24 |
| S77 | 5 | "20020091527"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:53 |
| S78 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:17 |
| S79 | 1 | S78 and (congest\$5)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:17 |
| S84 | 1 | S78 and ( (back pressure or pause or halt\$3 or stop\$4 or backpressure))               | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:19 |
| S85 | 1 | S78 and (congest\$5 and (back pressure or pause or halt\$3 or stop\$4 or backpressure)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:19 |
| S86 | 2 | "6324165".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:20 |
| S87 | 1 | S86 and (congest\$5)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:21 |
| S88 | 1 | S86 and (congest\$5 and (back pressure or pause or halt\$3 or stop\$4 or backpressure)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:32 |

3/ 23/ 2014 9:58:09 PM

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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query  | DBs  | Default Operator | Plurals | Time Stamp          |
|-------|------|---|--|------------------|---------|---------------------|
| L1    | 2    | "6952424".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:16 |
| L2    | 1    | L1 and (Flow or pause or stop\$3 or halt\$3 or backpressure or back pressure) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:16 |
| L3    | 2    | "6324165".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:35 |
| L4    | 1    | 3 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:35 |
| L5    | 3    | "6788686".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:36 |
| L6    | 1    | 5 and ((weight or weigh\$3) with (back pressure or backpressure))             | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:36 |
| L7    | 1    | 5 and ((weight or weigh\$3) and (back pressure or backpressure))              | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:37 |
| L11   | 2    | "6952424".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>10:10 |
| L12   | 1    | L11 and (indicator)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>10:10 |
| L13   | 1    | 1 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>10:18 |

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| S1  | 8990  | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3)                              | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:55 |
| S2  | 874   | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3) same (flow near2 control\$3) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:55 |
| S3  | 411   | (back pressure or paus\$3 or halt\$3 or stop\$4) with (congestion or congest\$3) with (flow near2 control\$3) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:56 |
| S4  | 88734 | (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                                    | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:56 |
| S5  | 3     | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                             | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:56 |
| S6  | 3     | S3 and ((back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight))                           | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:57 |
| S7  | 1     | "13360310"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:58 |
| S8  | 2     | "6570848".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:03 |
| S9  | 4     | "6031821".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:03 |
| S10 | 6     | S8 or S9  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:03 |
| S11 | 2     | S10 and (weigh\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S12 | 4     | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion)               | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |

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| S13 | 1  | S12 not S6   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S14 | 10 | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion or percentage or percent) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:05 |
| S15 | 2  | "6170022".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:20 |
| S17 | 1  | S15 and (percent or percentage or pause)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:21 |
| S18 | 1  | S15 and (percent\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:21 |
| S19 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S20 | 75 | "6788686"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S21 | 3  | "6788686".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S22 | 5  | S19 or S21   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S23 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:29 |
| S24 | 2  | S22 and (backpressure or back pressure or paus\$3 or halt\$3 or stop\$4)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:29 |
| S25 | 2  | S24 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:30 |

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| S26 | 3 | "20130132573"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:58 |
| S27 | 1 | S26 and (embed\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:58 |
| S28 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S29 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S30 | 5 | S28 or S29   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S31 | 3 | S30 and (flow)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S32 | 3 | S30 and (flow or (backpressure<br>or back pressure))   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:05 |
| S33 | 3 | S30 and (flow or (backpressure<br>or back pressure) or (weigh\$3 or<br>weight))                  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:20 |
| S34 | 1 | S30 and ( (backpressure or back<br>pressure or paus\$3 or halt\$3)<br>with (weigh\$3 or weight)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:43 |
| S35 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |
| S36 | 1 | S35 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |
| S37 | 1 | S35 and ((weight or weigh\$3)<br>with (back pressure or halt or<br>paus\$3 or stop\$4))          | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |

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| S38 | 1      | S35 and ((weight or weigh\$3) and (back pressure or halt or paus\$3 or stop\$4))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:35 |
| S39 | 2      | "6967923".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:37 |
| S41 | 1      | S39 and (weight\$3 or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:38 |
| S42 | 2      | S30 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:41 |
| S43 | 1      | S30 and ((weight or weigh\$3) with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                      | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:43 |
| S44 | 1      | S30 and ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                      | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:44 |
| S45 | 301379 | ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                              | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:46 |
| S46 | 89069  | ((weight or weigh\$3)with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                               | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:47 |
| S47 | 4471   | S46 and (flow near2 control)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:47 |
| S48 | 1571   | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:48 |
| S49 | 42     | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure))             | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S50 | 48     | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 )) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |



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| S51 | 434   | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 or halt\$3 or stop\$4 )) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S52 | 1     | "13360310"  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:50 |
| S53 | 3     | S50 and (network)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:52 |
| S54 | 65    | S51 and (network)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:52 |
| S55 | 20    | S51 and (network and (packet or frame))   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:53 |
| S56 | 21498 | (network and (weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:55 |
| S57 | 441   | (network and (weight or weigh\$3) with (paus\$3 or backpressure or back pressure))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:56 |
| S58 | 24    | S57 and (network with (flow near2 control\$4))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:57 |
| S59 | 153   | S57 and ( (flow near2 control\$4))  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:57 |
| S60 | 3     | "20060187945"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:38 |
| S61 | 2     | S60 and (weight\$3 or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:38 |
| S62 | 2     | "20040257997"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:41 |

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| S63 | 2  | S62 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:41 |
| S64 | 1  | S62 and ((weight or weigh\$3)<br>with (backpressure or back<br>pressure))                      | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:42 |
| S65 | 14 | "7701957".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:44 |
| S66 | 2  | S65 and (backpressure or back<br>pressure)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:45 |
| S67 | 2  | "6952424".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:46 |
| S68 | 1  | S67 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:46 |
| S69 | 1  | S67 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure)                    | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:47 |
| S70 | 1  | S67 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure or halt or stop\$4) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:48 |
| S73 | 1  | S67 and (back)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:52 |
| S74 | 1  | S67 and (flow)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:17 |
| S75 | 1  | S67 and (flow and back)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:23 |
| S76 | 1  | S67 and (paus\$3 or stop\$4 or<br>halt\$3 or back)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:24 |



|     |    |   |  |     |    |                     |
|-----|----|---|--|-----|----|---------------------|
| S77 | 5  | "20020091527"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:53 |
| S78 | 3  | "6788686".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:17 |
| S79 | 1  | S78 and (congest\$5)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:17 |
| S84 | 1  | S78 and ( (back pressure or<br>pause or halt\$3 or stop\$4 or<br>backpressure))               | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:19 |
| S85 | 1  | S78 and (congest\$5 and (back<br>pressure or pause or halt\$3 or<br>stop\$4 or backpressure)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:19 |
| S86 | 2  | "6324165".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:20 |
| S87 | 1  | S86 and (congest\$5)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:21 |
| S88 | 1  | S86 and (congest\$5 and (back<br>pressure or pause or halt\$3 or<br>stop\$4 or backpressure)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:32 |
| S89 | 13 | "7802028".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:37 |
| S90 | 1  | S89 and (congest\$4)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:37 |
| S91 | 1  | S89 and (congest\$4 same<br>(stop\$3 or paus\$3 or stop\$4 or<br>halt\$3))                    | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:38 |
| S92 | 3  | "20060248242"   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:40 |

|      |   |   |  |     |    |                     |
|------|---|---|--|-----|----|---------------------|
| S93  | 2 | S92 and (congestion same pause)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:40 |
| S94  | 2 | "6952424".pn.   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:46 |
| S95  | 1 | S94 and (weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:47 |
| S96  | 1 | S94 and (weigh\$3 and (pause or halt\$3 or stop\$4 or backpressure or back pressure))             | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:48 |
| S97  | 2 | S92 and (backpressure or back pressure or halt\$3 or stop\$4 or pause)                            | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:07 |
| S98  | 2 | S92 and ((backpressure or back pressure or halt\$3 or stop\$4 or pause) and (weigh\$3 or weight)) | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:15 |
| S99  | 2 | S92 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:25 |
| S100 | 1 | S94 and ((pause or halt\$3 or stop\$4 or backpressure or back pressure))                          | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:29 |
| S101 | 2 | S94 and (threshold or level or limit)   | US-PGPUB;<br>USPAT; USOCR;<br>FPRS; EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:59 |

3/ 24/ 2014 10:19:09 AM

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## BIB DATA SHEET

CONFIRMATION NO. 1373


|   |   |                                   |   |  |                                |
|---|---|-----------------------------------|---|--|--------------------------------|
| <b>SERIAL NUMBER</b><br>13/360,310  | <b>FILING or 371(c) DATE</b><br>01/27/2012<br><b>RULE</b>   | <b>CLASS</b><br>370               | <b>GROUP ART UNIT</b><br>2462   | <b>ATTORNEY DOCKET NO.</b><br>ALC 3328-CON |                                |
| <b>APPLICANTS</b><br><b>INVENTORS</b><br>John Madsen, Ottawa, CANADA;<br>Joey Chow, Nepean, CANADA;<br>Dion Pike, Stittsville, CANADA;<br><b>** CONTINUING DATA *****</b><br>This application is a CON of 11/907,871 10/18/2007 PAT 8130649<br><b>** FOREIGN APPLICATIONS *****</b><br><b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b><br>02/07/2012 |   |                                   |   |  |                                |
| Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Verified and /SAMINA F<br>CHOUHRY/<br>Acknowledged Examiner's Signature   | <input type="checkbox"/> Met after Allowance<br>Initials  | <b>STATE OR COUNTRY</b><br>CANADA | <b>SHEETS DRAWINGS</b><br>1   | <b>TOTAL CLAIMS</b><br>20                  | <b>INDEPENDENT CLAIMS</b><br>3 |
| <b>ADDRESS</b><br>Terry W. Kramer, Esq.<br>Kramer & Amado, P.C.<br>330 John Carlyle Street<br>3rd Floor<br>Alexandria, VA 22314<br>UNITED STATES  |   |                                   |   |  |                                |
| <b>TITLE</b><br>INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM  |   |                                   |   |  |                                |
| <b>FILING FEE RECEIVED</b><br>1250  | FEES: Authority has been given in Paper<br>No. _____ to charge/credit DEPOSIT ACCOUNT<br>No. _____ for following: |                                   | <input type="checkbox"/> All Fees<br><input type="checkbox"/> 1.16 Fees (Filing)<br><input type="checkbox"/> 1.17 Fees (Processing Ext. of time)<br><input type="checkbox"/> 1.18 Fees (Issue)<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> Credit |  |                                |

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query  | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|---|---|------------------|---------|---------------------|
| L1    | 38   | flow with control with ((queue\$3 or buffer?) with (weight))                                  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L2    | 5    | backpressure same (queues with weight)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L3    | 1100 | backpressure same (queues or buffer? or memory)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L4    | 455  | L3 and (queue\$3 with (priorit\$3))   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L5    | 42   | L4 and (weight same (priorit\$3 or type of QOS or COS or level))                              | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L6    | 76   | back?pressure with (receiver)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L7    | 12   | L6 and (queue\$2 with (priorit\$2 or QOS or COS or level))                                    | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L8    | 519  | ((flow control) and (weight\$3 with (factors or crieteria or metrics) with rate))             | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L9    | 5    | ((flow control) and (weight\$3 with (factors or crieteria or metrics) with rate with queues)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L10   | 9    | ((flow control) and (weight\$3 with (factors or crieteria or metrics) with rate same queues)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L11   | 4    | L10 not L9  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |
| L12   | 99   | L8 and (determin\$3 with (weight\$3 with (factors or criteria)))                              | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>12:39 |

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|-----|----|---------------|---|-----|----|---------------------|
| L13 | 92 | L12 not L10   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:39 |
| L14 | 2  | "7292578".pn. | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:39 |
| L15 | 6  | "7006440".pn. | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:39 |
| L16 | 2  | "5704047".pn. | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:39 |
| L17 | 2  | "6967923".pn. | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:39 |
| L18 | 3  | "20050271076" | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:39 |

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|--|--|---|
| <b>Search Notes</b><br><br> | <b>Application/Control No.</b><br><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br><br>MADSEN ET AL. |
|  | <b>Examiner</b><br><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br><br>2462   |

| CPC- SEARCHED |           |          |
|---------------|-----------|----------|
| Symbol        | Date      | Examiner |
| H04L 47/10    | 3/20/2014 | SC       |

| CPC COMBINATION SETS - SEARCHED           |            |          |
|---|------------|----------|
| Symbol                                    | Date       | Examiner |
| H04L 5/0053, H04L 12/5602, H04L 2012/5636 | 03/20/2014 | SC       |

| US CLASSIFICATION SEARCHED |          |            |          |
|----------------------------|----------|------------|----------|
| Class                      | Subclass | Date       | Examiner |
|                            |          | 03/19/2014 |          |

| SEARCH NOTES                          |            |          |
|---------------------------------------|------------|----------|
| Search Notes                          | Date       | Examiner |
| EAST search with all databases        |            |          |
| keyword search                        | 03/19/2014 | SC       |
| 370/235,229,464,465,468               | 03/19/2014 | SC       |
| Assignee and Inventorship Search done | 03/19/2014 | SC       |

| INTERFERENCE SEARCH     |                         |      |          |
|-------------------------|-------------------------|------|----------|
| US Class/<br>CPC Symbol | US Subclass / CPC Group | Date | Examiner |
|                         |                         |      |          |

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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query  | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|---|---|------------------|---------|---------------------|
| L1    | 2    | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:16 |
| L2    | 1    | L1 and (Flow or pause or stop\$3 or halt\$3 or backpressure or back pressure) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:16 |
| L3    | 2    | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:35 |
| L4    | 1    | 3 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:35 |
| L5    | 3    | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:36 |
| L6    | 1    | 5 and ((weight or weigh\$3) with (back pressure or backpressure))             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:36 |
| L7    | 1    | 5 and ((weight or weigh\$3) and (back pressure or backpressure))              | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>09:37 |
| L11   | 2    | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/03/24<br>10:10 |
| L12   | 1    | L11 and (indicator)   | US-PGPUB;<br>USPAT;   | ADJ              | ON      | 2014/03/24<br>10:10 |

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|-----|---|--|---|-----|----|---------------------|
|     |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L13 | 1 | 1 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:18 |
| L14 | 1 | 1 and (control\$4)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:24 |
| L15 | 3 | "20060248242"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:28 |
| L16 | 2 | 15 and (control\$4)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:28 |
| L17 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:29 |
| L18 | 1 | 17 and (controller)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:29 |
| L20 | 1 | 3 and (controller with pause or<br>stop\$3 or halt\$3)                                     | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:31 |
| L21 | 1 | 3 and (controller with pause or<br>stop\$3 or halt\$3 or back pressure<br>or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:32 |
| L22 | 1 | 5 and (controller with pause or<br>stop\$3 or halt\$3 or back pressure<br>or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:34 |
| L23 | 1 | 3 and (controller with pause or<br>stop\$3 or halt\$3 or back pressure                     | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/24<br>10:36 |



|     |       |                                     |   |     |    |                     |
|-----|-------|-------------------------------------|---|-----|----|---------------------|
|     |       | or backpressure)                    | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L24 | 1     | 5 and (portion or part )            | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:42 |
| L25 | 1     | 1 and (portion)                     | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>10:42 |
| L26 | 6     | "11907871"                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:15 |
| L27 | 3     | "8130649".pn.                       | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:24 |
| L28 | 2     | 27 and (set near2 weigh\$4)         | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:24 |
| L29 | 1     | 27 and (set near2 weigh\$4).clm.    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:24 |
| L31 | 1     | 27 and (cross\$3 or threshold).clm. | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:39 |
| L35 | 1     | "13360310"                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:57 |
| L36 | 1     | 35 and (control\$4)                 | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>11:57 |
| L37 | 36656 | h04l47/10.cpc.                      | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/24<br>12:11 |

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|-----|-------|---|---|-----|----|---------------------|
|     |       |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L38 | 5399  | h04I12/5602.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:11 |
| L39 | 2846  | h04I2012/5636.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:11 |
| L40 | 15822 | h04I5/0053.cpc.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:11 |
| L41 | 58005 | 37 or 38 or 39 or 40  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:12 |
| L42 | 33    | 41 and ((weight or weigh\$3) with<br>(paus or halt\$3 or stop\$4 or back<br>pressure or backpressure))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:15 |
| L43 | 37    | 41 and ((weight or weigh\$3) with<br>(pause or halt\$3 or stop\$4 or back<br>pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:25 |
| L44 | 117   | 41 and ((weight or weigh\$3) same<br>(pause or halt\$3 or stop\$4 or back<br>pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:25 |
| L45 | 72    | 44 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:26 |
| L46 | 41397 | 370/329,335,464,465,468.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:28 |
| L47 | 6697  | 46 and (pause or halt\$3 or stop\$4<br>or back pressure or backpressure)                                | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/24<br>12:28 |

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|     |       |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L48 | 22    | 46 and ((weight or weigh\$3) with (pause or halt\$3 or stop\$4 or back pressure or backpressure))             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:29 |
| L49 | 2     | 45 and 48   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:29 |
| L50 | 20    | 48 not 49   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:29 |
| L51 | 2     | 50 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:30 |
| L52 | 12    | 50 and (network and flow)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>12:30 |
| S1  | 8990  | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3)                              | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:55 |
| S2  | 874   | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3) same (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:55 |
| S3  | 411   | (back pressure or paus\$3 or halt\$3 or stop\$4) with (congestion or congest\$3) with (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:56 |
| S4  | 88734 | (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:56 |
| S5  | 3     | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or                                     | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/22<br>17:56 |

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|     |    | weight)  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S6  | 3  | S3 and ((back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight))                                      | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:57 |
| S7  | 1  | "13360310"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>17:58 |
| S8  | 2  | "6570848".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:03 |
| S9  | 4  | "6031821".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:03 |
| S10 | 6  | S8 or S9   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:03 |
| S11 | 2  | S10 and (weigh\$4)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S12 | 4  | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion)                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S13 | 1  | S12 not S6   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:04 |
| S14 | 10 | S3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion or percentage or percent) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:05 |
| S15 | 2  | "6170022".pn.  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/22<br>18:20 |

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|     |    |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S17 | 1  | S15 and (percent or percentage or pause)                                 | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:21 |
| S18 | 1  | S15 and (percent\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>18:21 |
| S19 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S20 | 75 | "6788686"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S21 | 3  | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S22 | 5  | S19 or S21   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:22 |
| S23 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:29 |
| S24 | 2  | S22 and (backpressure or back pressure or paus\$3 or halt\$3 or stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:29 |
| S25 | 2  | S24 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:30 |
| S26 | 3  | "20130132573"  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/22<br>21:58 |

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|-----|---|--|---|-----|----|---------------------|
|     |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S27 | 1 | S26 and (embed\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/22<br>21:58 |
| S28 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S29 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S30 | 5 | S28 or S29   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S31 | 3 | S30 and (flow)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>13:59 |
| S32 | 3 | S30 and (flow or (backpressure or back pressure))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:05 |
| S33 | 3 | S30 and (flow or (backpressure or back pressure) or (weigh\$3 or weight))                  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:20 |
| S34 | 1 | S30 and ( (backpressure or back pressure or paus\$3 or halt\$3) with (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>14:43 |
| S35 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |
| S36 | 1 | S35 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/23<br>15:34 |



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|     |        |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S37 | 1      | S35 and ((weight or weigh\$3) with (back pressure or halt or paus\$3 or stop\$4))                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:34 |
| S38 | 1      | S35 and ((weight or weigh\$3) and (back pressure or halt or paus\$3 or stop\$4))                     | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:35 |
| S39 | 2      | "6967923".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:37 |
| S41 | 1      | S39 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:38 |
| S42 | 2      | S30 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:41 |
| S43 | 1      | S30 and ((weight or weigh\$3) with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:43 |
| S44 | 1      | S30 and ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:44 |
| S45 | 301379 | ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))         | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:46 |
| S46 | 89069  | ((weight or weigh\$3)with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:47 |
| S47 | 4471   | S46 and (flow near2 control)   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/23<br>15:47 |

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|     |       |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S48 | 1571  | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:48 |
| S49 | 42    | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure))                                   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S50 | 48    | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 ))                       | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S51 | 434   | S47 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 or halt\$3 or stop\$4 )) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:49 |
| S52 | 1     | "13360310"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:50 |
| S53 | 3     | S50 and (network)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:52 |
| S54 | 65    | S51 and (network)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:52 |
| S55 | 20    | S51 and (network and (packet or frame))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:53 |
| S56 | 21498 | (network and (weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:55 |
| S57 | 441   | (network and (weight or weigh\$3) with (paus\$3 or backpressure or  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/23<br>15:56 |



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|     |     | back pressure))   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S58 | 24  | S57 and (network with (flow near2 control\$4))                      | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:57 |
| S59 | 153 | S57 and ( (flow near2 control\$4))                                  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>15:57 |
| S60 | 3   | "20060187945"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:38 |
| S61 | 2   | S60 and (weight\$3 or weigh\$3)                                     | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:38 |
| S62 | 2   | "20040257997"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:41 |
| S63 | 2   | S62 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:41 |
| S64 | 1   | S62 and ((weight or weigh\$3) with (backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:42 |
| S65 | 14  | "7701957".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:44 |
| S66 | 2   | S65 and (backpressure or back pressure)                             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:45 |
| S67 | 2   | "6952424".pn.   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/23<br>17:46 |

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|     |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S68 | 1 | S67 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:46 |
| S69 | 1 | S67 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure)                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:47 |
| S70 | 1 | S67 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure or halt or stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:48 |
| S73 | 1 | S67 and (back)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>17:52 |
| S74 | 1 | S67 and (flow)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:17 |
| S75 | 1 | S67 and (flow and back)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:23 |
| S76 | 1 | S67 and (paus\$3 or stop\$4 or<br>halt\$3 or back)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:24 |
| S77 | 5 | "20020091527"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>18:53 |
| S78 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:17 |
| S79 | 1 | S78 and (congest\$5)   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/23<br>20:17 |

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|-----|----|---|---|-----|----|---------------------|
|     |    |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S84 | 1  | S78 and ( (back pressure or pause or halt\$3 or stop\$4 or backpressure))               | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:19 |
| S85 | 1  | S78 and (congest\$5 and (back pressure or pause or halt\$3 or stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:19 |
| S86 | 2  | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:20 |
| S87 | 1  | S86 and (congest\$5)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:21 |
| S88 | 1  | S86 and (congest\$5 and (back pressure or pause or halt\$3 or stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/23<br>20:32 |
| S89 | 13 | "7802028".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:37 |
| S90 | 1  | S89 and (congest\$4)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:37 |
| S91 | 1  | S89 and (congest\$4 same (stop\$3 or paus\$3 or stop\$4 or halt\$3))                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:38 |
| S92 | 3  | "20060248242"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:40 |
| S93 | 2  | S92 and (congestion same pause)   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2014/03/24<br>00:40 |

|      |   |   |   |     |    |                     |
|------|---|---|---|-----|----|---------------------|
|      |   |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| S94  | 2 | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:46 |
| S95  | 1 | S94 and (weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:47 |
| S96  | 1 | S94 and (weigh\$3 and (pause or halt\$3 or stop\$4 or backpressure or back pressure))             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>00:48 |
| S97  | 2 | S92 and (backpressure or back pressure or halt\$3 or stop\$4 or pause)                            | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:07 |
| S98  | 2 | S92 and ((backpressure or back pressure or halt\$3 or stop\$4 or pause) and (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:15 |
| S99  | 2 | S92 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:25 |
| S100 | 1 | S94 and ((pause or halt\$3 or stop\$4 or backpressure or back pressure))                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:29 |
| S101 | 2 | S94 and (threshold or level or limit)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2014/03/24<br>01:59 |

3/ 24/ 2014 12:31:40 PM

C:\Users\schoudhry\Documents\EAST\Workspaces\13360310.wsp

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|                      |   |                              |
|----------------------|---|------------------------------|
| In re Application of | : | John Madsen, et al.          |
|                      | : |                              |
|                      | : | INGRESS TRAFFIC CONTROL IN A |
|                      | : | DATA COMMUNICATIONS SYSTEM   |
|                      | : |                              |
| Serial No.           | : | 13/360,310                   |
|                      | : |                              |
| Filed                | : | January 27, 2012             |
|                      | : |                              |
| Art Unit             | : | 2462                         |
|                      | : |                              |
| Examiner             | : | Samina F. Choudhry           |
|                      | : |                              |
| Att. Docket          | : | ALC 3328-CON                 |
|                      | : |                              |
| Confirmation No.     | : | 1373                         |

**AMENDMENT UNDER 37 C.F.R § 1.111**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated March 28, 2014, please amend the  
above-identified application as set forth below:

**CLAIM AMENDMENTS** begin on page 2 of this paper.

**REMARKS** begin on page 10 of this paper.

Application No. 13/360,310  
Our Ref. No. ALC 3328-CON

**CLAIM AMENDMENTS**

This listing of claims will replace all prior versions and listings of claims in the application.

1-16. (Canceled)

17. (Currently Amended) A method performed by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal ~~to be applied to the flow of data packets.~~

18. (Currently Amended) The method of claim 17, wherein [[:]] the step of determining at least one weighting factor comprises:

determining, based on the backpressure signal, a set of weighting factors; and

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Our Ref. No. ALC 3328-CON

the step of adjusting the amount of rate limiting comprises:

adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

19. (Previously Presented) The method of claim 17, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

20. (Currently Amended) The method of claim 19, wherein the step of determining at least one weighting factor further comprises:

reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

21. (Currently Amended) The method of claim 17, further comprising:

receiving ~~wherein~~ the backpressure signal ~~is received~~ from a downstream data processing unit.

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22. (Currently Amended) The method of claim 17, further comprising:

generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

23. (Currently Amended) The method of claim 17, wherein the ~~contents~~ content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

24. (Currently Amended) A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system comprising:

a first rate limiter configured to provide an amount of rate limiting to a first portion of the flow of ingress data packets, the amount of rate limiting being dependent upon a first weighting factor; and

a controller configured to:

receive a backpressure signal,



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Our Ref. No. ALC 3328-CON

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and

adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on both the determined first weighting factor value and a content of the backpressure signal.

25. (Currently Amended) The traffic flow control system of claim 24, further comprising:

a second rate limiter configured to provide an amount of rate limiting to a second portion of the flow of ingress data packets that is different from the first portion of the flow of ingress data packets, the amount of rate limiting of the second rate limiter being dependent upon a second weighting factor, wherein the controller is further configured to [[:]] determine a second weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and adjust an amount of rate limiting applied to the second portion of the flow of ingress data packets by adjusting the second weighting factor used by the second rate limiter based on the determined second weighting factor value.

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26. (Previously Presented) The traffic flow control system of claim 24, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

27. (Previously Presented) The traffic flow control system of claim 26, wherein, in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values.

28. (Previously Presented) The traffic flow control system of claim 24, wherein the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value.

29. (Currently Amended) The traffic flow control system of claim 24, wherein the ~~contents~~ content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

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Our Ref. No. ALC 3328-CON

30. (Currently Amended) A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising:

instructions for receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

instructions for determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

instructions for adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal ~~to be applied to the flow of data packets.~~

31. (Currently Amended) The non-transitory machine-readable storage medium of claim 30, wherein [[:]] the instructions for determining at least one weighting factor comprise

instructions for determining, based on the backpressure signal, a set of weighting factors; and

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Our Ref. No. ALC 3328-CON

the instructions for adjusting the amount of rate limiting comprise:

instructions for adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

instructions for adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

32. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

33. (Previously Presented) The non-transitory machine-readable storage medium of claim 32, wherein the instructions for determining at least one weighting factor comprise:

instructions for reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

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34. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is received from a downstream data processing unit.

35. (Currently Amended) The non-transitory machine-readable storage medium of claim 30, further comprising:

instructions for generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

36. (Currently Amended) The non-transitory machine-readable storage medium of claim 30, wherein the ~~contents~~ content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

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Our Ref. No. ALC 3328-CON

### **REMARKS**

Claims 17-36 are pending in this application, of which claims 17, 24, and 30 are independent. Applicant hereby amends claims 17, 18, 20-25, 29-31, 35, and 36, and respectfully submits that this Amendment does not add any new matter.

### **DOUBLE PATENTING REJECTIONS**

On pages 2-6, the Office Action rejects claims 17-23 and 30-36 on the ground of non-statutory obviousness-type double patenting as allegedly unpatentable over claims 1-19 of U.S. Patent No. 8,130,649. In response, Applicant hereby files a terminal disclaimer and respectfully requests withdrawal of the rejections.

### **PRIOR ART REJECTIONS**

On pages 6-11, the Office Action rejects claims 17-23 and 30-36 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 6,952,424 to Bass et al. (“Bass”) in view of Pub. No. US 2006/0248242 to Andersen et al. (“Andersen”). On pages 11-15, the Office Action rejects claims 24-29 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bass in view of U.S. Patent No. 6,788,686 to Khotimsky et al. (“Khotimsky”).

As amended, claim 17 recites, in part: “adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the

Application No. 13/360,310  
Our Ref. No. ALC 3328-CON

determined at least one weighting factor and a content of the backpressure signal” in claim 17. The configurable mapping of Table 1, for example, provides support for this subject matter. Similar subject matter appears in claims 24 and 30. Applicant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On pages 7 and 8, the Office Action relies upon Bass for rate limiting. While Bass may disclose “a form of a backpressure to limit the output,” Applicant respectfully submits that Bass is silent regarding content of a backpressure signal. As amended, the independent claims recite use of this content as a parameter that adjusts the amount of rate limiting. Moreover, Bass also lacks any disclosure of adjusting an amount of rate limiting based upon two different factors, where one factor is a content of the backpressure signal.

Thus, Applicant respectfully submits that Bass in view of Andersen fails to establish a prima facie case of obviousness for independent claims 17, 24, and 30. Khotimsky fails to remedy the deficiencies of Bass in view of Andersen. Therefore, Applicant respectfully submits that independent claims 17, 24, and 30 are allowable over the references of record.

Claim 20 recites: “reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors” (emphasis added). Similar subject matter appears in claims 27 and 33.

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Our Ref. No. ALC 3328-CON

Applicant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 9, the Office Action concedes that Bass does not disclose this subject matter. To remedy this admitted deficiency, the Examiner cites Andersen, relying upon Andersen's set of thresholds. However, Andersen is silent regarding the claimed mapping of fill level states to weighting factors. Thus, Andersen cannot remedy the admitted deficiencies of Bass.

On page 14, the Office Action alleges, in the context of claim 27, that Bass does disclose this subject matter, contradicting the Examiner's previous position. However, the Examiner fails to point out any mapping of fill level states to weighting factors in Bass. As described above, Bass lacks this subject matter.

Claims 18-23 depend from claim 17. Claims 25-29 depend from claim 24. Claims 31-36 depend from claim 30. Thus, claims 18-23, 25-29, and 31-36 are allowable at least due to their respective dependencies from allowable base claims. Therefore, Applicant respectfully requests withdrawal of all prior art rejections.



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Our Ref. No. ALC 3328-CON

**CONCLUSION**

While Applicant respectfully submits that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner telephone the undersigned attorney in order to expeditiously resolve any outstanding issues. In the event that the fees submitted prove to be insufficient in connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account.

Respectfully submitted,  
**KRAMER & AMADO, P.C.**

Date: April 8, 2014

/Terry W. Kramer/  
Terry W. Kramer  
Registration No.: 41,541

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Alexandria, VA 22314  
Phone: 703-519-9801  
Fax: 703-519-9802

## Electronic Patent Application Fee Transmittal

|  |  |          |        |                      |
|--|--|----------|--------|----------------------|
| <b>Application Number:</b>                     | 13360310   |          |        |                      |
| <b>Filing Date:</b>                            | 27-Jan-2012  |          |        |                      |
| <b>Title of Invention:</b>                     | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |          |        |                      |
| <b>First Named Inventor/Applicant Name:</b>    | John Madsen  |          |        |                      |
| <b>Filer:</b>                                  | Terry Wayne Kramer/wendy spradlin                            |          |        |                      |
| <b>Attorney Docket Number:</b>                 | ALC 3328-CON   |          |        |                      |
| Filed as Large Entity                          |  |          |        |                      |
| <b>Utility under 35 USC 111(a) Filing Fees</b> |  |          |        |                      |
| Description                                    | Fee Code   | Quantity | Amount | Sub-Total in USD(\$) |
| <b>Basic Filing:</b>                           |  |          |        |                      |
| <b>Pages:</b>                                  |  |          |        |                      |
| <b>Claims:</b>                                 |  |          |        |                      |
| <b>Miscellaneous-Filing:</b>                   |  |          |        |                      |
| <b>Petition:</b>                               |  |          |        |                      |
| <b>Patent-Appeals-and-Interference:</b>        |  |          |        |                      |
| <b>Post-Allowance-and-Post-Issuance:</b>       |  |          |        |                      |
| <b>Extension-of-Time:</b>                      |  |          |        |                      |

| Description                      | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|----------------------------------|----------|----------|--------|----------------------|
| <b>Miscellaneous:</b>            |          |          |        |                      |
| Statutory or Terminal Disclaimer | 1814     | 1        | 160    | 160                  |
| <b>Total in USD (\$)</b>         |          |          |        | <b>160</b>           |

**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 18701300   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/wendy spradlin                            |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 08-APR-2014  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 12:00:00   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

|  |               |
|--|---------------|
| Submitted with Payment                   | yes           |
| Payment Type                             | Credit Card   |
| Payment was successfully received in RAM | \$ 160        |
| RAM confirmation Number                  | 10646         |
| Deposit Account                          | 500578        |
| Authorized User                          | KRAMER, TERRY |

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

**File Listing:**

| Document Number | Document Description      | File Name                      | File Size(Bytes)/<br>Message Digest                | Multi Part /.zip | Pages (if appl.) |
|-----------------|---------------------------|--------------------------------|--|------------------|------------------|
| 1               | Terminal Disclaimer Filed | sb0026_Terminal_Disclaimer.pdf | 374393<br>370f39caf8bc1644ad702ebe90fb08afe68b6f1b | no               | 2                |

**Warnings:****Information:**

|   |  |                 |   |     |    |
|---|--|-----------------|---|-----|----|
| 2 |  | Response_NF.pdf | 75302<br>9f3961ae5c52e86b7239a636d8dd11a9eb2efef0 | yes | 13 |
|---|--|-----------------|---|-----|----|

**Multipart Description/PDF files in .zip description**

|  | Document Description                                  | Start | End |
|--|---|-------|-----|
|  | Amendment/Req. Reconsideration-After Non-Final Reject | 1     | 1   |
|  | Claims  | 2     | 9   |
|  | Applicant Arguments/Remarks Made in an Amendment      | 10    | 13  |
|  |   |       |     |

**Warnings:****Information:**

|   |                      |              |   |    |   |
|---|----------------------|--------------|---|----|---|
| 3 | Fee Worksheet (SB06) | fee-info.pdf | 30212<br>aa3d00ba8b779e6ac4f320d66643d54eabe60503 | no | 2 |
|---|----------------------|--------------|---|----|---|

**Warnings:****Information:**

|                                     |  |  |        |
|-------------------------------------|--|--|--------|
| <b>Total Files Size (in bytes):</b> |  |  | 479907 |
|-------------------------------------|--|--|--------|

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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

**TERMINAL DISCLAIMER TO OBVIATE A DOUBLE PATENTING  
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)  
ALC 3328-CON

In re Application of: Madsen et al.

Application No.: 13/360,310

Filed: January 27, 2012

For: INGRESS TRAFFIC CONTROL IN A DATA COMMUNICATIONS SYSTEM

The owner\*, ALCATEL LUCENT, of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of **prior patent** No. 8,130,649 as the term of said **prior patent** is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior patent** later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☒ The undersigned is an attorney or agent of record. Reg. No. 41,541

/Terry W. Kramer/

Signature

April 7, 2014

Date

Terry W. Kramer

Typed or printed name

(703) 519-9801

Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) included.

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\*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).  
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.




|  |  |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
|--|--|---|----------------------------------|--------------|---|------------------------------------|----------------------------------|---------------|---------------------------------------|--|--|
| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875  |  |   |                                  |              | Application or Docket Number<br><b>13/360,310</b> |                                    | Filing Date<br><b>01/27/2012</b> |               | <input type="checkbox"/> To be Mailed |  |  |
| ENTITY: <input checked="" type="checkbox"/> LARGE <input type="checkbox"/> SMALL <input type="checkbox"/> MICRO  |  |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
| <b>APPLICATION AS FILED – PART I</b>   |  |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
| (Column 1)   |  |   | (Column 2)                       |              |   |                                    |                                  |               |                                       |  |  |
| FOR  |  | NUMBER FILED  |                                  | NUMBER EXTRA |   | RATE (\$)                          |                                  | FEE (\$)      |                                       |  |  |
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))  |  | N/A   |                                  | N/A          |   | N/A                                |                                  |               |                                       |  |  |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m))   |  | N/A   |                                  | N/A          |   | N/A                                |                                  |               |                                       |  |  |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  |  | N/A   |                                  | N/A          |   | N/A                                |                                  |               |                                       |  |  |
| TOTAL CLAIMS<br>(37 CFR 1.16(i))   |  | minus 20 =  |                                  | *            |   | X \$ =                             |                                  |               |                                       |  |  |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))   |  | minus 3 =   |                                  | *            |   | X \$ =                             |                                  |               |                                       |  |  |
| <input type="checkbox"/> APPLICATION SIZE FEE<br>(37 CFR 1.16(s))  |  | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                  |              |   |                                    |                                  |               |                                       |  |  |
| <input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))   |  |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
| * If the difference in column 1 is less than zero, enter "0" in column 2.  |  |   |                                  |              |   | TOTAL                              |                                  |               |                                       |  |  |
| <b>APPLICATION AS AMENDED – PART II</b>  |  |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
| (Column 1)   |  |   | (Column 2)                       |              |   | (Column 3)                         |                                  |               |                                       |  |  |
| AMENDMENT  | <b>04/08/2014</b>  |   | CLAIMS REMAINING AFTER AMENDMENT |              |   | HIGHEST NUMBER PREVIOUSLY PAID FOR |                                  | PRESENT EXTRA |                                       |  |  |
|  | Total (37 CFR 1.16(i))   |   | * 20                             |              | Minus   | ** 20                              |                                  | =             |                                       |  |  |
|  | Independent (37 CFR 1.16(h))   |   | * 3                              |              | Minus   | *** 3                              |                                  | =             |                                       |  |  |
|  | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
|  | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
|  |  |   |                                  |              |   | TOTAL ADD'L FEE                    |                                  |               |                                       |  |  |
| (Column 1)   |  |   | (Column 2)                       |              |   | (Column 3)                         |                                  |               |                                       |  |  |
| AMENDMENT  |  |   | CLAIMS REMAINING AFTER AMENDMENT |              |   | HIGHEST NUMBER PREVIOUSLY PAID FOR |                                  | PRESENT EXTRA |                                       |  |  |
|  | Total (37 CFR 1.16(i))   |   | *                                |              | Minus   | **                                 |                                  | =             |                                       |  |  |
|  | Independent (37 CFR 1.16(h))   |   | *                                |              | Minus   | ***                                |                                  | =             |                                       |  |  |
|  | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
|  | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |   |                                  |              |   |                                    |                                  |               |                                       |  |  |
|  |  |   |                                  |              |   | TOTAL ADD'L FEE                    |                                  |               |                                       |  |  |
| <p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p> |  |   |                                  |              |   |                                    |                                  |               |                                       |  |  |

LIE  
/ELMIRA HALL/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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|  |  |   |  |
|--|--|---|--|
| <b>Application Number</b><br> | <b>Application/Control No.</b><br>13/360,310 | <b>Applicant(s)/Patent under Reexamination</b><br>MADSEN ET AL. |  |
| <b>Document Code - DISQ</b>  |  | <b>Internal Document – DO NOT MAIL</b>                          |  |

|                                |  |   |
|--------------------------------|--|---|
| <b>TERMINAL<br/>DISCLAIMER</b> | <input checked="" type="checkbox"/> <b>APPROVED</b>            | <input type="checkbox"/> <b>DISAPPROVED</b> |
| <b>Date Filed : 4/8/14</b>     | <b>This patent is subject<br/>to a Terminal<br/>Disclaimer</b> |   |

|                                 |
|---------------------------------|
| <b>Approved/Disapproved by:</b> |
|---------------------------------|

|                    |
|--------------------|
| Felicia D. Roberts |
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| 8,130,649 |
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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

|       |      |            |
|-------|------|------------|
| 76614 | 7590 | 07/30/2014 |
|-------|------|------------|

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 Kramer & Amado, P.C.  
 330 John Carlyle Street  
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 Alexandria, VA 22314

|                    |  |
|--------------------|--|
| EXAMINER           |  |
| CHOUDHRY, SAMINA F |  |

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 2462     |              |

|                   |               |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
| 07/30/2014        | ELECTRONIC    |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mail@krameramado.com

**Office Action Summary****Application No.**  
13/360,310**Applicant(s)**  
MADSEN ET AL.**Examiner**  
SAMINA CHOUDHRY**Art Unit**  
2462**AIA (First Inventor to File)  
Status**  
No**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04/08/2014.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5) ☒ Claim(s) 1-36 is/are pending in the application.  
 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-19, 21-32 and 34-36 is/are rejected.
- 8) ☒ Claim(s) 20 and 33 is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a) ☐ All b) ☐ Some\*\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
 Paper No(s)/Mail Date \_\_\_\_.
- 3) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_.
- 4) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

### ***Response to Arguments***

1. This action is response to the communication filed on 04/08/2014. Claims 1-19, 21-32 and 34-36 are pending.

Applicant filed terminal disclaimer to overcome ODP, consequently examiner has withdrawn the rejection.

Based on new ground of rejection, applicant's arguments are moot.

### ***Allowable Subject Matter***

2. Claims 20 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17-19, 21-23, and 30-32, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al. (US 6952424) in view of Anderson et al. (US 2006/0248242) and further in view of Trinth et al. (US 2004/0015599).

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Regarding claims 17 and 30, Bass discloses a method performed by a traffic flow control system /a non-transitory machine readable storage encoded with instructions by a traffic flow control system (Col. 2; lines 16-27) for performing flow control on a flow of data packets for transmission over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle);

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal (Col. 7; lines 46-57; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle).

Bass does not explicitly disclose that the backpressure signal indicates a period of congestion.

In an analogous art, Anderson discloses that the backpressure signal indicates a period of congestion (¶ 22). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to improve network performance by reducing network congestion.

Bass discloses adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to

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the flow of data packets (Col. 7; lines 46-50; claim 2 and 6; providing a back\_pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue).

Bass does not explicitly state that the adjustment of the rate is based on both the determined at least one weighting factor and a content of the backpressure signal.

In an analogous art, Trinth discloses that the adjustment of the rate is based (¶ 233; The back-pressure management system includes components from the ingress network processor and the egress network processor. The switch fabric sends flow-control information to the egress network processor so that it can inform the ingress network processor not to send data to a particular one of the logical output ports. An I/O unit of the egress network processor forwards the control portion of the flow-control information to control input storage. The data portion is forwarded to the data input storage. An IPU fetches the flow-control information from the control input storage and decodes it and sends to an IPU a back-pressure message that includes the logical port number to which data should not be sent. The IPU sets a value within the BPLUT corresponding to the logical port so that it indicates that data should not be sent to that logical port number specified by the information.) on both the determined at least one weighting factor and a content of the backpressure signal (¶ 180 and 234; the rate of the flow is controlled based on the information received from the congestion message/backpressure message and the weight stored in the back pressure look up table (BPLUT) for each priority of COS.

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The traffic processing unit (TPU) checks the BPLUT before scheduling a flow for forwarding by the FPU. The TPU uses the "Egress Port" and the "Priority" fields within the "TPI" to form the logical port to check against the BPLUT. If the BPLUT indicates that data should not be sent to this logical port, the TPU does not schedule a forwarding command for this flow to the FPU. When this logical port is again available, the TPU may then schedule a selected flow that uses the logical port by sending a forwarding command corresponding to this flow to the FPU command storage. Using the scheduling command, the FPU fetches from the storage unit an information segment belonging to the selected flow and sends it to a switch fabric control unit ("SFC") for framing before sending to the I/O unit to forward to the switch fabric. The TPU scheduler also reads a status within the backpressure lookup table (BPLUT). The backpressure lookup table is stored in an internal SSRAM. The backpressure look up table contains the congestion status of the logical ports. Each logical port is associated with a CoS (e.g., priority) of a corresponding physical port. Therefore, since the network processor of the example herein has up to 256 priorities (8 weight bits) for 16 physical ports, there are  $256 \times 16 = 4096$  logical ports. If a bit within the backpressure table is set to one, the corresponding logical port is congested. Otherwise, the corresponding port is not congested. Each entry of the BPLUT may be set by a congestion message from the corresponding logical port). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Trinth in order to improve network performance by reducing network congestion based on the priorities set to different flows.

Regarding claims 18 and 31, Bass does not explicitly disclose:



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the step of determining at least one weighting factor comprises determining, based on the backpressure signal, a set of weighting factors (Col. 9; lines 25-39).

Bass does not explicitly disclose that the step of adjusting the amount of rate limiting comprises:

adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and  
adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

In an analogous art, Anderson discloses that the step of adjusting the amount of rate limiting comprises:

adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and  
adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors (§ 22; Ingress backpressure mechanism uses packet or cell counters to track the number of packets or cells used on an ingress port basis. Ingress mechanism includes registers for a set of 8 individually configurable thresholds and registers used to specify which of the 8 thresholds are to be used for every ingress port in the system. The set of thresholds include a limit threshold, a discard limit threshold and a reset limit threshold 316). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to dynamically manage different queues based on their fill level.

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Regarding claims 19 and 32, Bass discloses that the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (Abstract and Col. 7; lines 46-50; A “back pressure” system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold. This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle).

Regarding claims 21 and 34, Bass does not explicitly disclose that the backpressure signal is received from a downstream data processing unit.

In an analogous art, Anderson discloses that the backpressure signal is received from a downstream data processing unit (§ 21; ingress backpressure mechanism). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass’s method by adding the limitation of Anderson in order to improve the flow control based on the capacity utilization level of the receiver.

Regarding claims 22 and 35, Bass discloses generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor (Col. 8; lines 41-60; Each of the WFQ calendars is associated with a pair of ports; thus, WFQ Port 0 is associated with a higher priority port 0 and a lower priority port 0. If the target port queue's threshold has been exceeded, no further action is taken by that WFQ calendar during the scheduler.sub.-- tick. (This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle.) If the target port queue's threshold has not been exceeded, the slot that is indicated by the current pointer is then examined. If the slot is

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found to be empty, then the current pointer may advance to the next non-empty slot to find a flow queue WFQ candidate. If all slots are found to be empty, the current pointer is unchanged and no candidate is found. If the slot is found to be non-empty within this one calendar, then the flow queue address stored in the slot is the WFQ candidate for this port. Each of the WFQ calendars will similarly be able to find a candidate for its associated target port queue.

Regarding claims 23 and 36, Bass discloses that the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (Abstract; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold).

5. Claims 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al. (US 6952424) in view of Anderson et al. (US 2006/0248242), further in view of Trinh et al. (US 2004/0015599) and further in view of Khotimsky et al. (US 6788686).

Regarding claim 24, Bass discloses a traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the traffic flow control system comprising:

a first rate limiter configured to provide an amount of rate limiting to a flow queue ingress data packets, the amount of rate limiting being dependent upon a first weighting factor (Col. 3; lines 32-36; Col. 6; line 63... Col. 7, line 7); and  
 a controller configured to (claim 6; controller):

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receive a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle)  
determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal (Col. 8; lines 45-50; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle), and  
adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on the determined first weighting factor value (Col. 8; lines 40-50; claim 4; Col. 9; lines 48-57).

Bass does not explicitly disclose that the flow queue is a first portion of the flow.

In an analogous art, Khotimsky discloses that the flow queue is a first portion of the flow (Col. 4; lines 11-25; flow is split into different portions and the flow is controlled for each portion). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Khotimsky in order to dynamically manage different portions of flows based on their corresponding egress buffer fill level.

Regarding claim 25, Bass discloses a traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the traffic flow control system comprising:

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a second rate limiter configured to provide an amount of rate limiting to a flow queue ingress data packets, the amount of rate limiting being dependent upon a first weighting factor (Col. 3; lines 32-36; Col. 6; line 63... Col. 7, line 7); and  
a controller configured to (claim 6; controller) :  
receive a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle)  
determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal (Col. 8; lines 45-50; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle), and  
adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on the determined first weighting factor value (Col. 8; lines 40-50; claim 4; Col. 9; lines 48-57).

Bass does not explicitly disclose that the flow queue is a second portion of the flow.

In an analogous art, Khotimsky discloses that the flow queue is a second portion of the flow (Col. 4; lines 11-25; flow is split into different portions and the flow is controlled for each portion). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Khotimsky in order to dynamically manage different portions of flows based on their corresponding egress buffer fill level.

Regarding claim 26, Bass discloses that the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (Abstract and Col. 7; lines

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46-50; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold. This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle).

Regarding claim 27, Bass further discloses that in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values (Col. 7; lines 46-50; claim 2 and 6; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue)

Regarding claim 28, Bass further discloses that the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets (Col. 9; lines 11-14), the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value (Col. 9; lines 11-24).

Regarding claims 29, Bass discloses that the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (Abstract; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold).

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***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMINA CHOUDHRY whose telephone number is (571)270-7102. The examiner can normally be reached on Monday to Thursday (7:30 a.m. to 5.00p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yemane Mesfin can be reached on (571)272-3927. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAMINA CHOUDHRY/

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Examiner, Art Unit 2462

/Kevin C. Harper/

Primary Examiner, Art Unit 2462



|                                   |                                       |  |   |             |
|-----------------------------------|---------------------------------------|--|---|-------------|
| <b>Notice of References Cited</b> | Application/Control No.<br>13/360,310 |  | Applicant(s)/Patent Under<br>Reexamination<br>MADSEN ET AL. |             |
|                                   | Examiner<br>SAMINA CHOUDHRY           |  | Art Unit<br>2462  | Page 1 of 1 |

## U.S. PATENT DOCUMENTS

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name         | Classification |
|---|---|--|-----------------|--------------|----------------|
| * | A | US-2004/0015599 A1                               | 01-2004         | Trinh et al. | 709/232        |
|   | B | US-  |                 |              |                |
|   | C | US-  |                 |              |                |
|   | D | US-  |                 |              |                |
|   | E | US-  |                 |              |                |
|   | F | US-  |                 |              |                |
|   | G | US-  |                 |              |                |
|   | H | US-  |                 |              |                |
|   | I | US-  |                 |              |                |
|   | J | US-  |                 |              |                |
|   | K | US-  |                 |              |                |
|   | L | US-  |                 |              |                |
|   | M | US-  |                 |              |                |

## FOREIGN PATENT DOCUMENTS

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | Classification |
|---|---|--|-----------------|---------|------|----------------|
|   | N |  |                 |         |      |                |
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|   | R |  |                 |         |      |                |
|   | S |  |                 |         |      |                |
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## NON-PATENT DOCUMENTS

| * |   | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
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|   | X |   |

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**EAST Search History****EAST Search History (Prior Art)**


| Ref # | Hits  | Search Query  | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|-------|---|---|------------------|---------|---------------------|
| L3    | 9     | "20040015599"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/07/22<br>15:38 |
| L4    | 2     | L3 and (back pressure or<br>backpressure or weigh\$3)                   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/07/22<br>15:38 |
| L5    | 2     | L4 and (rate or speed or fast\$3<br>or slow\$3)                         | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/07/22<br>15:38 |
| L6    | 3     | 3 and (congest\$4)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/07/22<br>15:47 |
| L7    | 3     | 3 and (flow with control\$4)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/07/22<br>15:51 |
| L8    | 2     | 3 and (tpu)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ              | ON      | 2014/07/22<br>16:55 |
| S1    | 14467 | (halt\$3 paus\$3 backpressure)<br>and (network with flow)               | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR               | ON      | 2014/07/09<br>00:33 |
| S2    | 1373  | S1 and (congest\$4 with flow)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR               | ON      | 2014/07/09<br>00:34 |
| S3    | 80    | S1 and ((halt\$3 paus\$3<br>backpressure) with (weight or<br>weigh\$3)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR               | ON      | 2014/07/09<br>00:35 |
| S4    | 80    | S1 and ((halt\$3 paus\$3<br>backpressure) with (weight<br>weigh\$3))    | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR               | ON      | 2014/07/09<br>00:35 |
| S5    | 2     | S1 and (( backpressure near5<br>signal) with (weight weigh\$3))         | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR               | ON      | 2014/07/09<br>00:36 |
| S6    | 30    | S1 and (( backpressure ) with<br>(weight weigh\$3))                     | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR               | ON      | 2014/07/09<br>00:36 |

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|-----|-------|--|---|-----|----|---------------------|
| S7  | 1     | "13360310"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2014/07/09<br>00:36 |
| S8  | 70    | S1 and (( backpressure ) same<br>(weight weigh\$3))  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2014/07/09<br>00:39 |
| S9  | 1329  | S1 and (( backpressure back<br>adj\$3 pressure) same (weight<br>weigh\$3))   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2014/07/09<br>00:39 |
| S11 | 38    | S1 and (( backpressure or back<br>near2 pressure) with (weight or<br>weigh\$3))                                      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/09<br>00:40 |
| S12 | 14467 | (halt\$3 paus\$3 backpressure)<br>and (network with flow)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2014/07/09<br>23:36 |
| S13 | 101   | S12 and (( backpressure or<br>back near2 pressure) same<br>(weight or weigh\$3))                                     | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/09<br>23:36 |
| S14 | 2     | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/10<br>18:43 |
| S15 | 1     | S14 and (weight\$3 or<br>weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/10<br>18:43 |
| S18 | 1     | S14 and ((weight\$3 or<br>weigh\$3) same (paus\$3 or<br>halt\$3 or stop\$4 or<br>backpressure or back pressure<br>)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/10<br>19:01 |
| S19 | 1     | S14 and ((paus\$3 or halt\$3 or<br>stop\$4 or backpressure or back<br>pressure ))                                    | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/10<br>19:03 |
| S20 | 1     | "13330365"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>11:03 |
| S21 | 1     | S20 and (relative with<br>occupancy)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>11:29 |
| S22 | 1     | S20 and (relative )  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>11:29 |
| S24 | 5     | "7023857".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:07 |
| S25 | 1     | S24 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;                             | ADJ | ON | 2014/07/22<br>12:07 |

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|     |   |   | JPO; DERWENT;<br>IBM_TDB  |     |    |                     |
| S26 | 9 | "20040015599"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:18 |
| S27 | 2 | S26 and (back pressure or<br>backpressure or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:18 |
| S28 | 2 | S26 and (congest\$5 with<br>message)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:52 |
| S29 | 2 | S26 and (bplut or table )   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:53 |
| S30 | 3 | S26 and (bplut or table or<br>congest\$4)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:53 |
| S31 | 2 | S26 and (back pressure or back<br>pressure)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>12:57 |
| S32 | 4 | "7983287".pn.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>13:07 |
| S33 | 1 | S32 and (weigh\$3 or<br>weight\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>13:07 |
| S35 | 1 | S32 and ((weigh\$3 or<br>weight\$3) same (backpressure<br>or back pressure or halt\$3 or<br>stop\$4)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>13:09 |
| S36 | 3 | S26 and (bplut or table or<br>congest\$4 or weigh\$4)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2014/07/22<br>13:33 |

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| <b>Search Notes</b><br><br> | <b>Application/Control No.</b><br><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br><br>MADSEN ET AL. |
|  | <b>Examiner</b><br><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br><br>2462   |

| CPC- SEARCHED |           |          |
|---------------|-----------|----------|
| Symbol        | Date      | Examiner |
| H04L 47/10    | 3/20/2014 | SC       |

| CPC COMBINATION SETS - SEARCHED           |            |          |
|---|------------|----------|
| Symbol                                    | Date       | Examiner |
| H04L 5/0053, H04L 12/5602, H04L 2012/5636 | 03/20/2014 | SC       |

| US CLASSIFICATION SEARCHED |          |            |          |
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| SEARCH NOTES                                 |            |          |
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| Search Notes                                 | Date       | Examiner |
| EAST search with all databases               |            |          |
| keyword search                               | 03/19/2014 | SC       |
| 370/235,229,464,465,468                      | 03/19/2014 | SC       |
| Assignee and Inventorship Search done        | 03/19/2014 | SC       |
| Updated EAST search                          | 07/15/2014 | SC       |
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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query   | DBs  | Default Operator | Plurals | Time Stamp          |
|-------|------|--|--|------------------|---------|---------------------|
| L1    | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L2    | 1376 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L3    | 1    | L1 and (speech near2<br>subroutine)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L4    | 2    | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L5    | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L6    | 4    | L4 or L5   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L7    | 3    | L6 and (program or code or<br>instructions or software or<br>computer)       | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L8    | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L9    | 1    | L8 and (program or code or<br>instructions or software or<br>computer)       | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L10   | 1    | L6 and (pause or halt\$3 or<br>stop\$4)                                      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L11   | 2    | L6 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L12   | 80   | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L13   | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L14   | 1    | L13 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L15   | 1    | L5 and (weight or<br>weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2014/07/22<br>17:34 |
| L16   | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;                     | ADJ              | ON      | 2014/07/22<br>17:34 |

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|     |   |                              | DERWENT; IBM_TDB   |     |    |                     |
| L17 | 1 | L16 and (weight or weigh\$3) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2014/07/22<br>17:34 |

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Alexandria, VA 22314



**Courtesy Reminder for  
Application Serial No: 13/360,310**

Attorney Docket No: ALC 3328-CON

Customer Number: 76614

Date of Electronic Notification: 07/30/2014

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

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**PATENT**

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|                      |   |                              |
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| In re Application of | : | John Madsen, et al.          |
|                      | : |                              |
|                      | : | INGRESS TRAFFIC CONTROL IN A |
|                      | : | DATA COMMUNICATIONS SYSTEM   |
|                      | : |                              |
| Serial No.           | : | 13/360,310                   |
|                      | : |                              |
| Filed                | : | January 27, 2012             |
|                      | : |                              |
| Art Unit             | : | 2462                         |
|                      | : |                              |
| Examiner             | : | Samina F. Choudhry           |
|                      | : |                              |
| Att. Docket          | : | ALC 3328-CON                 |
|                      | : |                              |
| Confirmation No.     | : | 1373                         |

**REQUEST FOR RECONSIDERATION AFTER FINAL**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Request is in response to the Office Action dated July 30, 2014, and is believed to be fully responsive to each point of the rejection raised therein. Accordingly, Applicant respectfully requests favorable reconsideration and allowance of all the claims in view of the following remarks.

**CLAIMS** begin on page 2 of this paper.

**REMARKS** begin on page 10 of this paper.

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Our Ref. No. ALC 3328-CON

### **CLAIMS**

1-16. (Canceled)

17. (Previously Presented) A method performed by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal.

18. (Previously Presented) The method of claim 17, wherein the step of determining at least one weighting factor comprises:

determining, based on the backpressure signal, a set of weighting factors; and the step of adjusting the amount of rate limiting comprises:

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adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

19. (Previously Presented) The method of claim 17, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

20. (Previously Presented) The method of claim 19, wherein the step of determining at least one weighting factor further comprises:

reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

21. (Previously Presented) The method of claim 17, further comprising:  
receiving the backpressure signal from a downstream data processing unit.

22. (Previously Presented) The method of claim 17, further comprising:

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generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

23. (Previously Presented) The method of claim 17, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

24. (Previously Presented) A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system comprising:

a first rate limiter configured to provide an amount of rate limiting to a first portion of the flow of ingress data packets, the amount of rate limiting being dependent upon a first weighting factor; and

a controller configured to:

receive a backpressure signal,

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and

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adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on both the determined first weighting factor value and a content of the backpressure signal.

25. (Previously Presented) The traffic flow control system of claim 24, further comprising:

a second rate limiter configured to provide an amount of rate limiting to a second portion of the flow of ingress data packets that is different from the first portion of the flow of ingress data packets, the amount of rate limiting of the second rate limiter being dependent upon a second weighting factor, wherein the controller is further configured to determine a second weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and adjust an amount of rate limiting applied to the second portion of the flow of ingress data packets by adjusting the second weighting factor used by the second rate limiter based on the determined second weighting factor value.

26. (Previously Presented) The traffic flow control system of claim 24, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

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27. (Previously Presented) The traffic flow control system of claim 26, wherein, in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values.

28. (Previously Presented) The traffic flow control system of claim 24, wherein the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value.

29. (Previously Presented) The traffic flow control system of claim 24, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

30. (Previously Presented) A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising:

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instructions for receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

instructions for determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

instructions for adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure.

31. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, wherein the instructions for determining at least one weighting factor comprise

instructions for determining, based on the backpressure signal, a set of weighting factors; and

the instructions for adjusting the amount of rate limiting comprise:

instructions for adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

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instructions for adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

32. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

33. (Previously Presented) The non-transitory machine-readable storage medium of claim 32, wherein the instructions for determining at least one weighting factor comprise:

instructions for reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

34. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is received from a downstream data processing unit.



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35. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, further comprising:

instructions for generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

36. (Previously Presented) The non-transitory machine-readable storage medium of claim 30, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

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**REMARKS**

Claims 17-36 are pending in this application, of which claims 17, 24, and 30 are independent.

**PRIOR ART REJECTIONS**

On pages 2-8, the Office Action rejects claims 17-19, 21-23, 30-32, and 34-36 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 6,952,424 to Bass et al. (“Bass”) in view of Pub. No. US 2006/0248242 to Andersen et al. (“Andersen”), and further in view of Pub. No. US2004/0015599 to Trinh et al. (“Trinh”). On pages 8-11, the Office Action rejects claims 24-29 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bass in view of Trinh, and further in view of U.S. Patent No. 6,788,686 to Khotimsky et al. (“Khotimsky”). On page 2, the Office Action indicates that claims 20 and 33 contain allowable subject matter.

Claim 17 recites, in part: “adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal” in claim 17. Similar subject matter appears in claims 24 and 30. Applicant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

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Our Ref. No. ALC 3328-CON

On page 4, the Office Action concedes that Bass does not disclose this subject matter. To remedy this admitted deficiency, the Examiner cites portions of Trinh, a 60-page jumbo patent. In particular, the Examiner relies upon “the weight stored in the back pressure look up table.”

In response, Applicant respectfully submits that the claim language refers to both the content of the backpressure signal and the determined weighting factor. Together, these parameters control the adjustment of an amount of rate limiting. In contrast, the Examiner alleges that Trinh controls the “rate of the flow.”

Instead of controlling a rate, paragraph [181] of Trinh discloses, for bit 63 of double word zero, “If this bit is set to one, then the flow is valid. Otherwise, when . . . zero, the flow is invalid.” It only alternates between valid and invalid flows.

Paragraph [0233] of Trinh discloses “flow control information” in the context of “sends flow control information to the egress network processor 624 so that it can inform the ingress network processor 622 not to send data.” Paragraph [0234] of Trinh similarly discloses “data should not be sent to this logical port.” Rather than adjusting an amount of rate limiting, Trinh stops all data at a particular port.

The other references of record fail to remedy the deficiencies of Bass and Trinh. Thus, Applicant respectfully submits that independent claims 17, 24, and 30 are allowable over the references of record.

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Claim 27 recites: “reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors” (emphasis added). Similar subject matter appears in claims 20 and 33. The Examiner indicates that this subject matter is allowable in claims 20 and 33 but takes an inconsistent position for claim 27.

Bass fails to disclose the mapping of various fill level states for the at least one packet queue to various weighting factor. On page 11, the rejection of claim 27 fails to address this subject matter because the Office Action does not show how the recited mapping is present in Bass.

Claims 18-23 depend from claim 17. Claims 25-29 depend from claim 24. Claims 31-36 depend from claim 30. Thus, claims 18-23, 25-29, and 31-36 are allowable at least due to their respective dependencies from allowable base claims. Therefore, Applicant respectfully requests withdrawal of all prior art rejections.

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Our Ref. No. ALC 3328-CON

**CONCLUSION**

While Applicant respectfully submits that the instant amendment places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner telephone the undersigned attorney in order to expeditiously resolve any outstanding issues. In the event that the fees submitted prove to be insufficient in connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account.

Respectfully submitted,  
**KRAMER & AMADO, P.C.**

Date: August 12, 2014

/Terry W. Kramer/  
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**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 19842584   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/wendy spradlin                            |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 12-AUG-2014  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 14:38:32   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
|------------------------|----|

**File Listing:**

| <b>Document Number</b> | <b>Document Description</b> | <b>File Name</b> | <b>File Size(Bytes)/<br/>Message Digest</b>       | <b>Multi Part /.zip</b> | <b>Pages (if appl.)</b> |
|------------------------|-----------------------------|------------------|---|-------------------------|-------------------------|
| 1                      |                             | Response_AF.pdf  | 72141<br>131edf10577b524ede7038f974e0b35514d420b3 | yes                     | 13                      |

## Multipart Description/PDF files in .zip description

| Document Description                             | Start | End |
|--|-------|-----|
| Response After Final Action                      | 1     | 1   |
| Claims   | 2     | 9   |
| Applicant Arguments/Remarks Made in an Amendment | 10    | 13  |

**Warnings:****Information:****Total Files Size (in bytes):**

72141

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

|  |  |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
|--|--|---|----------------------------------|--------------|---|------------------------------------|----------------------------------|----------|---------------------------------------|--|--------------------------------|--|
| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875  |  |   |                                  |              | Application or Docket Number<br><b>13/360,310</b> |                                    | Filing Date<br><b>01/27/2012</b> |          | <input type="checkbox"/> To be Mailed |  |                                |  |
| ENTITY: <input checked="" type="checkbox"/> LARGE <input type="checkbox"/> SMALL <input type="checkbox"/> MICRO  |  |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
| <b>APPLICATION AS FILED – PART I</b>   |  |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
| (Column 1)   |  |   | (Column 2)                       |              |   |                                    |                                  |          |                                       |  |                                |  |
| FOR  |  | NUMBER FILED  |                                  | NUMBER EXTRA |   | RATE (\$)                          |                                  | FEE (\$) |                                       |  |                                |  |
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))  |  | N/A   |                                  | N/A          |   | N/A                                |                                  |          |                                       |  |                                |  |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m))   |  | N/A   |                                  | N/A          |   | N/A                                |                                  |          |                                       |  |                                |  |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))  |  | N/A   |                                  | N/A          |   | N/A                                |                                  |          |                                       |  |                                |  |
| TOTAL CLAIMS<br>(37 CFR 1.16(i))   |  | minus 20 =  |                                  | *            |   | X \$ =                             |                                  |          |                                       |  |                                |  |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))   |  | minus 3 =   |                                  | *            |   | X \$ =                             |                                  |          |                                       |  |                                |  |
| <input type="checkbox"/> APPLICATION SIZE FEE<br>(37 CFR 1.16(s))  |  | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
| <input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))   |  |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
| * If the difference in column 1 is less than zero, enter "0" in column 2.  |  |   |                                  |              |   | TOTAL                              |                                  |          |                                       |  |                                |  |
| <b>APPLICATION AS AMENDED – PART II</b>  |  |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
| (Column 1)   |  |   | (Column 2)                       |              |   | (Column 3)                         |                                  |          |                                       |  |                                |  |
| <b>AMENDMENT</b>   | <b>08/12/2014</b>  |   | CLAIMS REMAINING AFTER AMENDMENT |              |   | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA                    |          | RATE (\$)                             |  | ADDITIONAL FEE (\$)            |  |
|  | Total (37 CFR 1.16(i))   |   | * 20                             |              | Minus   | ** 20                              | = 0                              |          | X \$80 =                              |  | 0                              |  |
|  | Independent (37 CFR 1.16(h))   |   | * 3                              |              | Minus   | *** 3                              | = 0                              |          | X \$420 =                             |  | 0                              |  |
|  | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
|  | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
|  |  |   |                                  |              |   |                                    |                                  |          | TOTAL ADD'L FEE                       |  | <b>0</b>                       |  |
| (Column 1)   |  |   | (Column 2)                       |              |   | (Column 3)                         |                                  |          |                                       |  |                                |  |
| <b>AMENDMENT</b>   |  |   | CLAIMS REMAINING AFTER AMENDMENT |              |   | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA                    |          | RATE (\$)                             |  | ADDITIONAL FEE (\$)            |  |
|  | Total (37 CFR 1.16(i))   |   | *                                |              | Minus   | **                                 | =                                |          | X \$ =                                |  |                                |  |
|  | Independent (37 CFR 1.16(h))   |   | *                                |              | Minus   | ***                                | =                                |          | X \$ =                                |  |                                |  |
|  | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
|  | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |   |                                  |              |   |                                    |                                  |          |                                       |  |                                |  |
|  |  |   |                                  |              |   |                                    |                                  |          | TOTAL ADD'L FEE                       |  |                                |  |
| <p>* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.</p> <p>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".</p> <p>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".</p> <p>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.</p> |  |   |                                  |              |   |                                    |                                  |          |                                       |  | LIE<br>/DONNA 1. SMALLS LOGAN/ |  |

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.





## UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

|       |      |            |
|-------|------|------------|
| 76614 | 7590 | 09/29/2014 |
|-------|------|------------|

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 3rd Floor  
 Alexandria, VA 22314

|                    |  |
|--------------------|--|
| EXAMINER           |  |
| CHOUDHRY, SAMINA F |  |

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 2462     |              |

|                   |               |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
| 09/29/2014        | ELECTRONIC    |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mail@krameramado.com

|   |                                       |                                       |                          |   |
|---|---------------------------------------|---------------------------------------|--------------------------|---|
| <p style="text-align: center;"><b>Advisory Action</b><br/><b>Before the Filing of an Appeal Brief</b></p> | <p>Application No.<br/>13/360,310</p> | <p>Applicant(s)<br/>MADSEN ET AL.</p> | <p>Art Unit<br/>2462</p> | <p>AIA (First Inventor to File) Status<br/>No</p> |
|---|---------------------------------------|---------------------------------------|--------------------------|---|

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 12 August 2014 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.  
NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires \_\_\_\_\_ months from the mailing date of the prior Advisory Action or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

*Examiner Note:* If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because

a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

b) ☐ They raise the issue of new matter (see NOTE below);

c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☒ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.

9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
Please see the attached continuation sheet.

13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

14. ☐ Other: \_\_\_\_\_.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: 20,27 and 33.

Claim(s) rejected: 17-19, 21-26, 28-32 and 34-36.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

|  |  |
|--|--|
| /SAMINA CHOUDHRY/<br>Examiner, Art Unit 2462 |  |
|--|--|

Regarding claim 17, applicant argues on page of applicant's response that prior art does not explicitly disclose "adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal". Examiner respectfully disagrees because Trinth clearly discloses that the rate of the flow is controlled based on the information received from the congestion message/backpressure message and the weight stored in the back pressure look up table (BPLUT) for each priority of COS. Trinth further discloses that the TPU 162 checks a BPLUT 575 before scheduling a command to the FPU 165 to forward the contents of one or more information segment storage units of a certain flow. A bit within the BPLUT 575 represents a logical port. The logical port represents the combination of a destination physical output port number and a priority of the flow (Where each flow has assigned weight accordind to the priority (Paragraph 180). The priority of the flow and the physical output port assigned to the flow are programmable within the network processor. The TPU 162 uses the "Egress Port" and the "Priority" fields within the "TPI" to form the logical port to check against the BPLUT 575. If the backpressure bit is set for the logical port, the TPU 162 does not schedule a forwarding command to the FPU 165. The interprocessor communication unit ("IPU") 576 receives information from another network processor to stop sending data to a logical port. The IPU 576 decodes the backpressure information and accordingly sets the particular one of the entries within the BPLUT 575 (Paragraph 205).

Regarding claim 27, applicant's arguments are persuasive. Claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any interveing claims.

OK TO ENTER: /S.C./

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|                      |   |                              |
|----------------------|---|------------------------------|
| In re Application of | : | John Madsen, et al.          |
|                      | : |                              |
|                      | : | INGRESS TRAFFIC CONTROL IN A |
|                      | : | DATA COMMUNICATIONS SYSTEM   |
|                      | : |                              |
| Serial No.           | : | 13/360,310                   |
|                      | : |                              |
| Filed                | : | January 27, 2012             |
|                      | : |                              |
| Art Unit             | : | 2462                         |
|                      | : |                              |
| Examiner             | : | Samina F. Choudhry           |
|                      | : |                              |
| Att. Docket          | : | ALC 3328-CON                 |
|                      | : |                              |
| Confirmation No.     | : | 1373                         |

**REQUEST FOR RECONSIDERATION AFTER FINAL**

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Request is in response to the Office Action dated July 30, 2014, and is believed to be fully responsive to each point of the rejection raised therein. Accordingly, Applicant respectfully requests favorable reconsideration and allowance of all the claims in view of the following remarks.

**CLAIMS** begin on page 2 of this paper.

**REMARKS** begin on page 10 of this paper.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|                      |   |                              |
|----------------------|---|------------------------------|
| In re Application of | : | John Madsen, et al.          |
|                      | : |                              |
|                      | : | INGRESS TRAFFIC CONTROL IN A |
|                      | : | DATA COMMUNICATIONS SYSTEM   |
|                      | : |                              |
| Serial No.           | : | 13/360,310                   |
|                      | : |                              |
| Filed                | : | January 27, 2012             |
|                      | : |                              |
| Art Unit             | : | 2462                         |
|                      | : |                              |
| Examiner             | : | Samina F. Choudhry           |
|                      | : |                              |
| Att. Docket          | : | ALC 3328-CON                 |
|                      | : |                              |
| Confirmation No.     | : | 1373                         |

**APPEAL BRIEF**

Mail Stop Appeal Brief Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Appellant respectfully submits this Appeal Brief in response to the final Office Action of July 30, 2014, the Advisory Action of September 29, 2014, and in support of the Notice of Appeal filed herewith.

**I. REAL PARTY IN INTEREST**

The party in interest is Alcatel Lucent, by way of an Assignment recorded at Reel 027610, frame 0953.

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Our Ref. No. ALC 3328-CON

## **II. SUMMARY OF CLAIMED SUBJECT MATTER**

The following summary refers to the specification of the present application by paragraph and line numbers.

The subject matter recited in independent claim 17 includes: “A method performed by a traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) for performing flow control on a flow of data packets for transmission over a link, the method comprising: receiving, by a controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), a backpressure signal (Fig. 1: 40; paragraph [0015], line 2), wherein the backpressure signal (Fig. 1: 40; paragraph [0015], line 2) indicates a period of congestion; determining, by the controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) to be applied to the flow of data packets based on the received backpressure signal (Fig. 1: 40; paragraph [0015], line 2); and adjusting an amount (paragraph [0016], lines 8-10) of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) and a content (Fig. 1: BP; paragraph [0015], line 2) of the backpressure signal (Fig. 1: 40; paragraph [0015], line 2).”

The subject matter recited in independent claim 24 includes: “A traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) for controlling a flow of ingress

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data packets to be transmitted over a link, the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) comprising: a first rate limiter (Fig. 1: 20; paragraph [0012], line 7) configured to provide an amount (paragraph [0016], lines 8-10) of rate limiting to a first portion of the flow of ingress data packets, the amount (paragraph [0016], lines 8-10) of rate limiting being dependent upon a first weighting factor (Fig. 1: W1; paragraph [0015], line 12); and a controller (Fig. 1: 42; paragraph [0012], line 13) configured to: receive a backpressure signal (Fig. 1: 40; paragraph [0015], line 2), determine a first weighting factor value (Fig. 1: W1; paragraph [0015], line 12) to be applied to the flow of ingress data packets based on the received backpressure signal (Fig. 1: 40; paragraph [0015], line 2), and adjust an amount (paragraph [0016], lines 8-10) of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor (Fig. 1: W1; paragraph [0015], line 12) used by the first rate limiter (Fig. 1: 20; paragraph [0012], line 7) based on both the determined first weighting factor value (Fig. 1: W1; paragraph [0015], line 12) and a content (Fig. 1: BP; paragraph [0015], line 2) of the backpressure signal (Fig. 1: 40; paragraph [0015], line 2).”

The subject matter recited in independent claim 30 includes: “A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising: instructions for

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Our Ref. No. ALC 3328-CON

receiving, by a controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), a backpressure signal (Fig. 1: 40; paragraph [0015], line 2), wherein the backpressure signal (Fig. 1: 40; paragraph [0015], line 2) indicates a period of congestion; instructions for determining, by the controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) to be applied to the flow of data packets based on the received backpressure signal (Fig. 1: 40; paragraph [0015], line 2); and instructions for adjusting an amount (paragraph [0016], lines 8-10) of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) and a content (Fig. 1: BP; paragraph [0015], line 2) of the backpressure (Fig. 1: 40; paragraph [0015], line 2).”



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### III. ARGUMENT

#### A. Obviousness Rejections of Claims 17-19, 21-23, 30-32, 34-36

On pages 2-8, the final Office Action rejected claims 17-19, 21-23, 30-32, and 34-36 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 6,952,424 to Bass et al. (“Bass”) in view of Pub. No. US 2006/0248242 to Andersen et al. (“Andersen”), mistakenly listed as Anderson in the Office Action, and further in view of Pub. No. US2004/0015599 to Trinh et al. (“Trinh”).

Rejections on obviousness grounds cannot be sustained with mere conclusory statements. Instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. See *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) and M.P.E.P. § 2142. The final Office Action failed to provide articulated reasoning to support its obviousness rejections. Hence, as described below, the final Office Action has failed to present a *prima facie* case of obviousness for any of the rejected claims.

The USPTO bears the initial burden of showing a *prima facie* case of obviousness. See *In re Sullivan*, 498 F.3d 1345, 1351 (Fed. Cir. 2007). When a *prima facie* case of obviousness is made, the burden then shifts to the Applicant to come forward with evidence and/or argument supporting patentability. See *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). Appellant respectfully submits that the final Office Action did not carry the burden in this case.

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1. Independent Claims 17 and 30

Claim 17 recites, in part: “adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal” (emphasis added). Similar subject matter appears in claim 30. Appellant respectfully submits that the references of record fail to disclose, suggest, or teach this subject matter.

On page 4, the final Office Action conceded that Bass does not disclose this subject matter. To remedy this admitted deficiency, the Examiner cited portions of Trinh, a 60-page jumbo patent. In particular, the Examiner relied upon “the weight stored in the back pressure look up table.”

In response, Appellant respectfully submits that the claim language refers to both the content of the backpressure signal and the determined weighting factor. Together, these two parameters control the adjustment of an amount of rate limiting. In contrast, the Examiner alleges that Trinh controls the “rate of the flow.” Instead of controlling a rate, paragraph [181] of Trinh discloses, for bit 63 of double word zero, “If this bit is set to one, then the flow is valid. Otherwise, when . . . zero, the flow is invalid.” Thus, it alternates between valid and invalid flows.

Paragraph [0233] of Trinh discloses “flow control information” in the context of “sends flow control information to the egress network processor 624 so that it can inform the ingress network processor 622 not to send data.” Paragraph [0234] of

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Trinh discloses, in part: “data should not be sent to this logical port.” Rather than adjusting an amount of rate limiting, Trinh stops all data at a particular port.

In the Advisory Action, the Examiner alleges: “Trinh clearly discloses that the rate of the flow is controlled.” In response, Appellant respectfully submits that the claims recite “adjusting an amount of rate limiting.” As described above, Trinh either allows all data or stops all data. Because Trinh does not adjust an amount of rate limiting, Trinh cannot remedy the deficiencies of Bass. Thus, the final Office Action did not present a *prima facie* case of obviousness.

The other references of record fail to remedy the deficiencies of Bass and Trinh. Thus, Appellant respectfully submits that independent claims 17 and 30 are allowable over the references of record and requests withdrawal of the rejections of claims 17 and 30.

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2. Dependent Claims 18, 19, 21-23, 31, 32, and 34-36

Claims 18, 19, and 21-23 depend from claim 17. Claims 31, 32, and 34-36 depend from claim 30. Thus, claims 18, 19, 21-23, 31, 32, and 34-36 are allowable at least due to their respective dependencies from allowable base claims. Therefore, Appellant respectfully requests withdrawal of the rejections of claims 18, 19, 21-23, 31, 32, and 34-36.

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**B. Obviousness Rejections of Claims 24-26, 28, and 29**

On pages 8-11, the final Office Action rejected claims 24-29 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bass in view of Andersen, further in view of Trinh, and yet further in view of U.S. Patent No. 6,788,686 to Khotimsky et al. (“Khotimsky”). In the Advisory Action, the Examiner withdrew the rejection of claim 27.

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1. Independent Claim 24

Claim 24 recites, in part: “adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on both the determined first weighting factor value and a content of the backpressure signal” (emphasis added). Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 9, the final Office Action relied upon Bass for this subject matter. This position is inconsistent with the Examiner’s admission that Bass does not disclose this subject matter when recited in independent claims 17 and 30. Moreover, Appellant respectfully submits that Bass is silent regarding the recited use of both the determined first weighting factor value and a content of the backpressure signal.

Khotimsky fails to remedy the deficiencies of Bass in view of Andersen, and further in view of Trinh. Thus, Applicant respectfully submits that claim 24 is allowable over the references of record and requests withdrawal of the rejection of claim 24.

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2. Dependent Claims 25, 26, 28, and 29

Claims 25, 26, 28, and 29 depend from claim 24. Thus, claims 25, 26, 28, and 29 are allowable at least due to their dependencies from an allowable base claim. Therefore, Appellant respectfully requests withdrawal of the rejections of claims 25, 26, 28, and 29.

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**CONCLUSION**

For at least the reasons discussed above, Appellant respectfully submits that the rejections are in error, and that claims 17-19, 21-26, 28-32, and 34-36 are in condition for allowance. Therefore, Appellant respectfully requests that this Honorable Board reverse the rejections of claims 17-19, 21-26, 28-32, and 34-36.

Respectfully submitted,  
**KRAMER & AMADO, P.C.**

Date: October 20, 2014

/Terry W. Kramer/  
Terry W. Kramer  
Registration No. 41,541

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Our Ref. No. ALC 3328-CON

#### **IV. CLAIMS APPENDIX**

##### **CLAIMS INVOLVED IN THE APPEAL:**

1-16. (Canceled)

17. (Rejected) A method performed by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal.

18. (Rejected) The method of claim 17, wherein the step of determining at least one weighting factor comprises:

determining, based on the backpressure signal, a set of weighting factors; and the step of adjusting the amount of rate limiting comprises:

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adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

19. (Rejected) The method of claim 17, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

20. (Objected) The method of claim 19, wherein the step of determining at least one weighting factor further comprises:

reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

21. (Rejected) The method of claim 17, further comprising:

receiving the backpressure signal from a downstream data processing unit.

22. (Rejected) The method of claim 17, further comprising:

generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet

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preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

23. (Rejected) The method of claim 17, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

24. (Rejected) A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system comprising:

a first rate limiter configured to provide an amount of rate limiting to a first portion of the flow of ingress data packets, the amount of rate limiting being dependent upon a first weighting factor; and

a controller configured to:

receive a backpressure signal,

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and

adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on both the determined first weighting factor value and a content of the backpressure signal.

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25. (Rejected) The traffic flow control system of claim 24, further comprising:

a second rate limiter configured to provide an amount of rate limiting to a second portion of the flow of ingress data packets that is different from the first portion of the flow of ingress data packets, the amount of rate limiting of the second rate limiter being dependent upon a second weighting factor, wherein the controller is further configured to determine a second weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and adjust an amount of rate limiting applied to the second portion of the flow of ingress data packets by adjusting the second weighting factor used by the second rate limiter based on the determined second weighting factor value.

26. (Rejected) The traffic flow control system of claim 24, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

27. (Objected) The traffic flow control system of claim 26, wherein, in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values.

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Our Ref. No. ALC 3328-CON

28. (Rejected) The traffic flow control system of claim 24, wherein the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value.

29. (Rejected) The traffic flow control system of claim 24, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

30. (Rejected) A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising:

instructions for receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

instructions for determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

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Our Ref. No. ALC 3328-CON

instructions for adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure.

31. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the instructions for determining at least one weighting factor comprise

instructions for determining, based on the backpressure signal, a set of weighting factors; and

the instructions for adjusting the amount of rate limiting comprise:

instructions for adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

instructions for adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

32. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

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Our Ref. No. ALC 3328-CON

33. (Objected) The non-transitory machine-readable storage medium of claim 32, wherein the instructions for determining at least one weighting factor comprise:

instructions for reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

34. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is received from a downstream data processing unit.

35. (Rejected) The non-transitory machine-readable storage medium of claim 30, further comprising:

instructions for generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

36. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

## Electronic Patent Application Fee Transmittal

|  |  |          |        |                      |
|--|--|----------|--------|----------------------|
| <b>Application Number:</b>                     | 13360310   |          |        |                      |
| <b>Filing Date:</b>                            | 27-Jan-2012  |          |        |                      |
| <b>Title of Invention:</b>                     | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |          |        |                      |
| <b>First Named Inventor/Applicant Name:</b>    | John Madsen  |          |        |                      |
| <b>Filer:</b>                                  | Terry Wayne Kramer/wendy spradlin                            |          |        |                      |
| <b>Attorney Docket Number:</b>                 | ALC 3328-CON   |          |        |                      |
| Filed as Large Entity                          |  |          |        |                      |
| <b>Utility under 35 USC 111(a) Filing Fees</b> |  |          |        |                      |
| Description                                    | Fee Code   | Quantity | Amount | Sub-Total in USD(\$) |
| <b>Basic Filing:</b>                           |  |          |        |                      |
| <b>Pages:</b>                                  |  |          |        |                      |
| <b>Claims:</b>                                 |  |          |        |                      |
| <b>Miscellaneous-Filing:</b>                   |  |          |        |                      |
| <b>Petition:</b>                               |  |          |        |                      |
| <b>Patent-Appeals-and-Interference:</b>        |  |          |        |                      |
| Appeal Forwarding Fee                          | 1413   | 1        | 2000   | 2000                 |
| <b>Post-Allowance-and-Post-Issuance:</b>       |  |          |        |                      |
| <b>Extension-of-Time:</b>                      |  |          |        |                      |



| Description       | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|-------------------|----------|----------|--------|----------------------|
| Miscellaneous:    |          |          |        |                      |
| Total in USD (\$) |          |          |        | 2000                 |

**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 20459351   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/wendy spradlin                            |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 20-OCT-2014  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 13:58:20   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
|------------------------|----|

**File Listing:**

| Document Number | Document Description   | File Name     | File Size(Bytes)/<br>Message Digest                | Multi Part /.zip | Pages (if appl.) |
|-----------------|------------------------|---------------|--|------------------|------------------|
| 1               | Notice of Appeal Filed | NOT_APEAL.pdf | 281571<br>a513ce28211d98db33bcb19fab7e76396367cc47 | no               | 2                |

**Warnings:****Information:**

|   |                      |                  |   |    |    |
|---|----------------------|------------------|---|----|----|
| 2   | Appeal Brief Filed   | Appeal_Brief.pdf | 98113<br>1040889dd74be821355ca6d30857f6ff42bf05d9 | no | 19 |
| <b>Warnings:</b>  |                      |                  |   |    |    |
| <b>Information:</b>   |                      |                  |   |    |    |
| 3   | Fee Worksheet (SB06) | fee-info.pdf     | 30020<br>5f05538c95a7239b51f14cf298610d51bd720ce6 | no | 2  |
| <b>Warnings:</b>  |                      |                  |   |    |    |
| <b>Information:</b>   |                      |                  |   |    |    |
| <b>Total Files Size (in bytes):</b>   |                      |                  | 409704  |    |    |
| <p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p> |                      |                  |   |    |    |

PTO/AIA/31 (03-13)

Approved for use through 03/31/2013. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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|   |  |   |  |  |                                  |                           |  |  |                  |                                |
|---|--|---|--|--|----------------------------------|---------------------------|--|--|------------------|--------------------------------|
| <b>NOTICE OF APPEAL FROM THE EXAMINER TO<br/>THE PATENT TRIAL AND APPEAL BOARD</b>  |  | Docket Number (Optional)<br><b>ALC 3328-CON</b> |  |  |                                  |                           |  |  |                  |                                |
| I hereby certify that this correspondence is being facsimile transmitted to the USPTO, EFS-Web transmitted to the USPTO, or deposited with the United States Postal Service with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, on Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____.<br>Signature _____<br>Typed or printed name _____ | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="padding: 2px;">In re Application of<br/>John Madsen et al.</td> </tr> <tr> <td style="width: 50%; padding: 2px;">Application Number<br/>13/360,310</td> <td style="width: 50%; padding: 2px;">Filed<br/>January 27, 2012</td> </tr> <tr> <td colspan="2" style="padding: 2px;">For<br/>Ingress Traffic Control in a Data Communications System</td> </tr> <tr> <td style="padding: 2px;">Art Unit<br/>2462</td> <td style="padding: 2px;">Examiner<br/>Samina F. Choudhry</td> </tr> </table> |   | In re Application of<br>John Madsen et al. |  | Application Number<br>13/360,310 | Filed<br>January 27, 2012 | For<br>Ingress Traffic Control in a Data Communications System |  | Art Unit<br>2462 | Examiner<br>Samina F. Choudhry |
| In re Application of<br>John Madsen et al.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| Application Number<br>13/360,310  | Filed<br>January 27, 2012  |   |  |  |                                  |                           |  |  |                  |                                |
| For<br>Ingress Traffic Control in a Data Communications System  |  |   |  |  |                                  |                           |  |  |                  |                                |
| Art Unit<br>2462  | Examiner<br>Samina F. Choudhry   |   |  |  |                                  |                           |  |  |                  |                                |
| Applicant hereby <b>appeals</b> to the Patent Trial and Appeal Board from the last decision of the examiner.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) <span style="float: right;">\$ 800.00 _____</span>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> Applicant asserts small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by 50%, and the resulting fee is: <span style="float: right;">\$ _____</span>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> Applicant certifies micro entity status. See 37 CFR 1.29. Therefore, the fee shown above is reduced by 75%, and the resulting fee is: <span style="float: right;">\$ _____</span><br>Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.   |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> A check in the amount of the fee is enclosed.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input checked="" type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. <u>50-0578</u> .   |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> Payment made via EFS-Web.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> A petition for an extension of time under 37 CFR 1.136(a) (PTO/AIA/22 or equivalent) is enclosed.<br>For extensions of time in reexamination proceedings, see 37 CFR 1.550.  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <b>WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</b>   |  |   |  |  |                                  |                           |  |  |                  |                                |
| I am the  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> applicant  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input checked="" type="checkbox"/> attorney or agent of record<br>Registration number <u>41,541</u>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34<br>Registration number _____  |  |   |  |  |                                  |                           |  |  |                  |                                |
| Signature <u>/Terry W. Kramer/</u>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| Typed or printed name <u>Terry W. Kramer</u>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| Telephone Number <u>(703) 519-9801</u>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| Date <u>October 20, 2014</u>  |  |   |  |  |                                  |                           |  |  |                  |                                |
| <b>NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.</b>   |  |   |  |  |                                  |                           |  |  |                  |                                |
| <input checked="" type="checkbox"/> * Total of <u>1</u> forms are submitted.  |  |   |  |  |                                  |                           |  |  |                  |                                |

This collection of information is required by 37 CFR 41.20(b)(1) and 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

## Electronic Patent Application Fee Transmittal

|  |  |          |        |                      |
|--|--|----------|--------|----------------------|
| <b>Application Number:</b>                     | 13360310   |          |        |                      |
| <b>Filing Date:</b>                            | 27-Jan-2012  |          |        |                      |
| <b>Title of Invention:</b>                     | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |          |        |                      |
| <b>First Named Inventor/Applicant Name:</b>    | John Madsen  |          |        |                      |
| <b>Filer:</b>                                  | Terry Wayne Kramer/wendy spradlin                            |          |        |                      |
| <b>Attorney Docket Number:</b>                 | ALC 3328-CON   |          |        |                      |
| Filed as Large Entity                          |  |          |        |                      |
| <b>Utility under 35 USC 111(a) Filing Fees</b> |  |          |        |                      |
| Description                                    | Fee Code   | Quantity | Amount | Sub-Total in USD(\$) |
| <b>Basic Filing:</b>                           |  |          |        |                      |
| <b>Pages:</b>                                  |  |          |        |                      |
| <b>Claims:</b>                                 |  |          |        |                      |
| <b>Miscellaneous-Filing:</b>                   |  |          |        |                      |
| <b>Petition:</b>                               |  |          |        |                      |
| <b>Patent-Appeals-and-Interference:</b>        |  |          |        |                      |
| Notice of Appeal                               | 1401   | 1        | 800    | 800                  |
| <b>Post-Allowance-and-Post-Issuance:</b>       |  |          |        |                      |
| <b>Extension-of-Time:</b>                      |  |          |        |                      |

| Description       | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|-------------------|----------|----------|--------|----------------------|
| Miscellaneous:    |          |          |        |                      |
| Total in USD (\$) |          |          |        | 800                  |

**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 20459430   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/wendy spradlin                            |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 20-OCT-2014  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 14:02:07   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

|  |               |
|--|---------------|
| Submitted with Payment                   | yes           |
| Payment Type                             | Credit Card   |
| Payment was successfully received in RAM | \$800         |
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

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## File Listing:

| Document Number | Document Description | File Name    | File Size(Bytes)/<br>Message Digest                  | Multi Part /.zip | Pages (if appl.) |
|-----------------|----------------------|--------------|--|------------------|------------------|
| 1               | Fee Worksheet (SB06) | fee-info.pdf | 30233<br><br>4ee8a396aeb020199d674d70837b60ca85256d1 | no               | 2                |

## Warnings:

## Information:

Total Files Size (in bytes):

30233

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### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



## UNITED STATES PATENT AND TRADEMARK OFFICE

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**United States Patent and Trademark Office**  
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 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

76614 7590 03/13/2015

Terry W. Kramer, Esq.  
 Kramer & Amado, P.C.  
 330 John Carlyle Street  
 3rd Floor  
 Alexandria, VA 22314

EXAMINER

CHOUDHRY, SAMINA F

ART UNIT

PAPER NUMBER

2462

NOTIFICATION DATE

DELIVERY MODE

03/13/2015

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mail@krameramado.com

**Office Action Summary****Application No.**  
13/360,310**Applicant(s)**  
MADSEN ET AL.**Examiner**  
SAMINA CHOUDHRY**Art Unit**  
2462**AIA (First Inventor to File)  
Status**  
No**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/20/2014.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5) ☒ Claim(s) 17-36 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 8) ☒ Claim(s) 20 and 33 is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a) ☐ All b) ☐ Some\*\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)  
Paper No(s)/Mail Date \_\_\_\_.
- 3) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Other: \_\_\_\_.

Application/Control Number: 13/360,310  
Art Unit: 2462

Page 2

**DETAILED ACTION**

1. In view of the appeal brief filed on 12/10/2010, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

\*\*\*\*\*

/YEMANE MESFIN/  
Supervisory Patent Examiner, Art Unit 2462

Application/Control Number: 13/360,310  
Art Unit: 2462

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*Response to Arguments*

1. This action is response to the communication filed on 10/20/2014. Claims 17-36 are pending.

Examiner is re-opening the prosecution because of the header error and overlooked limitation for claim 24. Examiner has maintained the prior art rejected as the panel agreed unanimously.

On page 6 of Appellant's response, Appellant argues:

"Claim 17 recites, in part: "adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal" (emphasis added). Similar subject matter appears in claim 30. Appellant respectfully submits that the references of record fail to disclose, suggest, or teach this subject matter".

Examiner respectfully disagrees because applicant does not specify "amount of rate limiting". The claim language does not disclose "amount" means how much amount. The "amount" can be any change/reduction to the rate of the flow of data packets based on the priority (weight) assigned to the flow of data packets (¶ 76; 180; 205) and feedback/back pressure signal received by the input unit from the output unit for that priority of flow (¶ 23-234). The amount of rate limiting is adjusted dynamically based on the status of the output port (congested or not congested) and each port is associated with a CoS (e.g., priority/weight) (¶ 180; 205).

Trinth discloses assigning multiple ports to a flow (¶ 233; all ports having the same priority/class) and the back pressure message contains a port number to which data should not be sent (Fig. 22; ¶ 233; An IPU fetches the flow-control information from the control input storage and decodes it and sends to an IPU a back-pressure message that includes the logical port number to

Application/Control Number: 13/360,310  
 Art Unit: 2462

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which data should not be sent. The IPU sets a value within the BPLUT corresponding to the logical port so that it indicates that data should not be sent to that logical port number specified by the flow-control information. Note that the IPU can also specify that the ingress network processor should not send data to a set of ports (e.g., all ports having the same priority/class). So data flow to one port or a set of ports is controlled based on the status (congested or not congested) of those ports (¶ 233). Controlling flow of data packets to one port or set of ports is in fact “adjusting an amount of rate limiting”. If data is not sent to one port from a set of ports, it means the “amount” of rate is reduced to adjust the output port congestion. Depending upon the severity of congestion, data may not send to a set of ports. Hence, the “amount” of data flow to output ports after adjusting can be  $0 \leq \text{rate of flow} < \text{rate of flow before receiving the back-pressure message}$ . The rate of data flow can be reduced to zero or it can be above zero but less than the data flow at the time of congestion depending upon the congestion level at the output port (¶ 76; 78; 106; 112 and 119).

Trinth further discloses that the rate of the flow is controlled based on the information received from the congestion message/backpressure message and the weight stored in the back pressure look up table (BPLUT) for each priority of COS (¶ 180 and 234). The traffic processing unit (TPU) checks the BPLUT before scheduling a flow for forwarding by the FPU. The TPU uses the "Egress Port" and the "Priority" fields within the "TPI" to form the logical port to check against the BPLUT. If the BPLUT indicates that data should not be sent to this logical port, the TPU does not schedule a forwarding command for this flow to the FPU. When this logical port is again available, the TPU may then schedule a selected flow that uses the logical port by sending a forwarding command corresponding to this flow to the FPU command storage. Using the scheduling command, the FPU fetches from the storage unit an information segment belonging to the selected flow and sends it to a switch fabric control unit ("SFC") for framing before sending to

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the I/O unit to forward to the switch fabric. The TPU scheduler also reads a status within the backpressure lookup table (BPLUT). The backpressure lookup table is stored in an internal SSRAM. The backpressure look up table contains the congestion status of the logical ports. Each logical port is associated with a CoS (e.g., priority) of a corresponding physical port. Therefore, since the network processor of the example herein has up to 256 priorities (8 weight bits) for 16 physical ports, there are  $256 \times 16 = 4096$  logical ports. If a bit within the backpressure table is set to one, the corresponding logical port is congested. Otherwise, the corresponding port is not congested. Each entry of the BPLUT may be set by a congestion message from the corresponding logical port). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Trinth in order to improve network performance by reducing network congestion based on the priorities set to different flows (Fig. 22; ¶ 234).

In addition to Trinth, Bass also discloses determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal (Col. 7; lines 46-57; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle). A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold (Abstract; Col. 8; lines 41-50).

The reasoning stated above also applies to other pending claims.

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***Allowable Subject Matter***

2. Claims 20 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 17-19, 21-23, and 30-32, 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al. (US 6952424) in view of Anderson et al. (US 2006/0248242) and further in view of Trinth et al. (US 2004/0015599).

Regarding claims 17 and 30, Bass discloses a method performed by a traffic flow control system /a non-transitory machine readable storage encoded with instructions by a traffic flow control system (Col. 2; lines 16-27) for performing flow control on a flow of data packets for transmission over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the method comprising:



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receiving, by a controller of the traffic flow control system, a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle);

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal (Col. 7; lines 46-57; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle). Bass does not explicitly disclose that the backpressure signal indicates a period of congestion.

In an analogous art, Anderson discloses that the backpressure signal indicates a period of congestion (¶ 22). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to improve network performance by reducing network congestion.

Bass discloses adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to the flow of data packets (Col. 7; lines 46-50; claim 2 and 6; providing a back\_pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue).

Bass does not explicitly state that the adjustment of the rate is based on both the determined at least one weighting factor and a content of the backpressure signal.

In an analogous art, Trinh discloses that the adjustment of the rate is based (¶ 233;

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The back-pressure management system includes components from the ingress network processor and the egress network processor. The switch fabric sends flow-control information to the egress network processor so that it can inform the ingress network processor not to send data to a particular one of the logical output ports. An I/O unit of the egress network processor forwards the control portion of the flow-control information to control input storage. The data portion is forwarded to the data input storage.

An IPU fetches the flow-control information from the control input storage and decodes it and sends to an IPU a back-pressure message that includes the logical port number to which data should not be sent. The IPU sets a value within the BPLUT corresponding to the logical port so that it indicates that data should not be sent to that logical port number specified by the information.) on both the determined at least one weighting factor and a content of the backpressure signal (¶ 180 and 234; the rate of the flow is controlled based on the information received from the congestion message/backpressure message and the weight stored in the back pressure look up table (BPLUT) for each priority of COS.

The traffic processing unit (TPU) checks the BPLUT before scheduling a flow for forwarding by the FPU. The TPU uses the "Egress Port" and the "Priority" fields within the "TPI" to form the logical port to check against the BPLUT. If the BPLUT indicates that data should not be sent to this logical port, the TPU does not schedule a forwarding command for this flow to the FPU. When this logical port is again available, the TPU may then schedule a selected flow that uses the logical port by sending a forwarding command corresponding to this flow to the FPU command storage. Using the scheduling command, the FPU fetches from the storage unit an information segment belonging to the selected flow and sends it to a switch fabric control unit ("SFC") for framing before sending to the I/O unit to forward to the switch fabric. The TPU scheduler also reads a status

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within the backpressure lookup table (BPLUT). The backpressure lookup table is stored in an internal SSRAM. The backpressure look up table contains the congestion status of the logical ports. Each logical port is associated with a CoS (e.g., priority) of a corresponding physical port. Therefore, since the network processor of the example herein has up to 256 priorities (8 weight bits) for 16 physical ports, there are  $256 \times 16 = 4096$  logical ports. If a bit within the backpressure table is set to one, the corresponding logical port is congested. Otherwise, the corresponding port is not congested. Each entry of the BPLUT may be set by a congestion message from the corresponding logical port). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Trinth in order to improve network performance by reducing network congestion based on the priorities set to different flows.

Regarding claims 18 and 31, Bass does not explicitly disclose:

the step of determining at least one weighting factor comprises determining, based on the backpressure signal, a set of weighting factors (Col. 9; lines 25-39).

Bass does not explicitly disclose that the step of adjusting the amount of rate limiting comprises:

adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

In an analogous art, Anderson discloses that the step of adjusting the amount of rate limiting comprises:

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adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors (¶ 22; Ingress backpressure mechanism uses packet or cell counters to track the number of packets or cells used on an ingress port basis. Ingress mechanism includes registers for a set of 8 individually configurable thresholds and registers used to specify which of the 8 thresholds are to be used for every ingress port in the system. The set of thresholds include a limit threshold, a discard limit threshold and a reset limit threshold 316). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Anderson in order to dynamically manage different queues based on their fill level.

Regarding claims 19 and 32, Bass discloses that the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (Abstract and Col. 7; lines 46-50; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold. This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle).

Regarding claims 21 and 34, Bass does not explicitly disclose that the backpressure signal is received from a downstream data processing unit.

In an analogous art, Anderson discloses that the backpressure signal is received from a downstream data processing unit (¶ 21; ingress backpressure mechanism). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the

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limitation of Anderson in order to improve the flow control based on the capacity utilization level of the receiver.

Regarding claims 22 and 35, Bass discloses generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor (Col. 8; lines 41-60; Each of the WFQ calendars is associated with a pair of ports; thus, WFQ Port 0 is associated with a higher priority port 0 and a lower priority port 0. If the target port queue's threshold has been exceeded, no further action is taken by that WFQ calendar during the scheduler.sub.-- tick. (This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle.) If the target port queue's threshold has not been exceeded, the slot that is indicated by the current pointer is then examined. If the slot is found to be empty, then the current pointer may advance to the next non-empty slot to find a flow queue WFQ candidate. If all slots are found to be empty, the current pointer is unchanged and no candidate is found. If the slot is found to be non-empty within this one calendar, then the flow queue address is stored in the slot is the WFQ candidate for this port. Each of the WFQ calendars will similarly be able to find a candidate for its associated target port queue.

Regarding claims 23 and 36, Bass discloses that the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (Abstract; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold).

5. Claims 24-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bass et al. (US 6952424) in view of Anderson et al. (US 2006/0248242), in view of Khotimsky et al. (US 6788686), and further in view of Trinh et al. (US 2004/0015599).

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Regarding claim 24, Bass discloses a traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the traffic flow control system comprising:

a first rate limiter configured to provide an amount of rate limiting to a flow queue ingress data packets, the amount of rate limiting being dependent upon a first weighting factor (Col. 3; lines 32-36; Col. 6; line 63... Col. 7, line 7); and

a controller configured to (claim 6; controller):

receive a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle)

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal (Col. 8; lines 45-50; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle), and

adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter (Col. 8; lines 40-50; claim 4; Col. 9; lines 48-57).

Bass does not explicitly disclose that the flow queue is a first portion of the flow.

In an analogous art, Khotimsky discloses that the flow queue is a first portion of the flow (Col. 4; lines 11-25; flow is split into different portions and the flow is controlled for each portion). It would have been obvious to one of ordinary skill in the art at the time of invention was made to

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modify Bass's method by adding the limitation of Khotimsky in order to dynamically manage different portions of flows based on their corresponding egress buffer fill level.

Bass discloses adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on the determined at least one weighting factor to be applied to the flow of data packets (Col. 7; lines 46-50; claim 2 and 6; providing a back\_pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue).

Bass does not explicitly state that the adjustment of the rate is based on both the determined at least one weighting factor and a content of the backpressure signal.

In an analogous art, Trinh discloses that the adjustment of the rate is based (§ 233; The back-pressure management system includes components from the ingress network processor and the egress network processor. The switch fabric sends flow-control information to the egress network processor so that it can inform the ingress network processor not to send data to a particular one of the logical output ports. An I/O unit of the egress network processor forwards the control portion of the flow-control information to control input storage. The data portion is forwarded to the data input storage. An IPU fetches the flow-control information from the control input storage and decodes it and sends to an IPU a back-pressure message that includes the logical port number to which data should not be sent. The IPU sets a value within the BPLUT corresponding to the logical port so that it indicates that data should not be sent to that logical port number specified by the information.) on both the determined at least one weighting factor and a content of the backpressure signal (§ 180 and 234; the rate of the flow is controlled based on the

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information received from the congestion message/backpressure message and the weight stored in the back pressure look up table (BPLUT) for each priority of COS.

The traffic processing unit (TPU) checks the BPLUT before scheduling a flow for forwarding by the FPU. The TPU uses the "Egress Port" and the "Priority" fields within the "TPI" to form the logical port to check against the BPLUT. If the BPLUT indicates that data should not be sent to this logical port, the TPU does not schedule a forwarding command for this flow to the FPU. When this logical port is again available, the TPU may then schedule a selected flow that uses the logical port by sending a forwarding command corresponding to this flow to the FPU command storage. Using the scheduling command, the FPU fetches from the storage unit an information segment belonging to the selected flow and sends it to a switch fabric control unit ("SFC") for framing before sending to the I/O unit to forward to the switch fabric. The TPU scheduler also reads a status within the backpressure lookup table (BPLUT). The backpressure lookup table is stored in an internal SSRAM. The backpressure look up table contains the congestion status of the logical ports. Each logical port is associated with a CoS (e.g., priority) of a corresponding physical port. Therefore, since the network processor of the example herein has up to 256 priorities (8 weight bits) for 16 physical ports, there are  $256 \times 16 = 4096$  logical ports. If a bit within the backpressure table is set to one, the corresponding logical port is congested. Otherwise, the corresponding port is not congested. Each entry of the BPLUT may be set by a congestion message from the corresponding logical port). It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify Bass's method by adding the limitation of Trinth in order to improve network performance by reducing network congestion based on the priorities set to different flows.



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Regarding claim 25, Bass discloses a traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link (Col. 1; lines 65-67; The present invention includes an improved system and method for scheduling the distribution of information units from a flow control system coupled to a plurality of network processing units toward a data transmission network through a MAC), the traffic flow control system comprising:

a second rate limiter configured to provide an amount of rate limiting to a flow queue ingress data packets, the amount of rate limiting being dependent upon a first weighting factor (Col. 3; lines 32-36; Col. 6; line 63... Col. 7, line 7); and

a controller configured to (claim 6; controller) :

receive a backpressure signal (Col. 8; lines 48-50; a backpressure is sent to the transmitter preventing frames from being sent out that the system cannot handle)

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal (Col. 8; lines 45-50; claim 2; providing a back pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle), and

adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on the determined first weighting factor value (Col. 8; lines 40-50; claim 4; Col. 9; lines 48-57).

Bass does not explicitly disclose that the flow queue is a second portion of the flow.

In an analogous art, Khotimsky discloses that the flow queue is a second portion of the flow (Col. 4; lines 11-25; flow is split into different portions and the flow is controlled for each portion). It would have been obvious to one of ordinary skill in the art at the time of invention was made to

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modify Bass's method by adding the limitation of Khotimsky in order to dynamically manage different portions of flows based on their corresponding egress buffer fill level.

Regarding claim 26, Bass further discloses that the backpressure signal is a backpressure message that indicates a tilt level state of at least one packet queue (Abstract and Col. 7; lines 46-50; A "back pressure" system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold. This system provides a form of back pressure to limit the output, preventing frames from being sent out that the system cannot handle).

Regarding claim 27, Bass further discloses that in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values (Col. 7; lines 46-50; claim 2 and 6; providing a back\_pressure indicator signal to said weighted fair calendar when an output queue associated with said weighted fair calendar is not empty, preventing that output queue from being selected during the time cycle and the back pressure controller includes at least one port queue and a threshold that limits the amount of information unit to be accommodated in said queue)

Regarding claim 28, Bass further discloses that the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets (Col. 9; lines 11-14), the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value (Col. 9; lines 11-24).

Regarding claims 29, Bass discloses that the contents of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed (Abstract; A "back pressure"

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system keeps a flow from being selected if its output cannot accept an additional frame because the current level of that port queue exceeds a threshold).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMINA CHOUDHRY whose telephone number is (571)270-7102. The examiner can normally be reached on Monday to Thursday (7:30 a.m. to 5.00p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yemane Mesfin can be reached on (571)272-3927. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair.direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAMINA CHOUDHRY/

Examiner, Art Unit 2462

**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits  | Search Query  | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|-------|---|---|------------------|---------|---------------------|
| L1    | 10040 | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3)                              | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L2    | 979   | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3) same (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L3    | 466   | (back pressure or paus\$3 or halt\$3 or stop\$4) with (congestion or congest\$3) with (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L4    | 94435 | (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L5    | 3     | L3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L6    | 3     | L3 and ((back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight))                           | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L7    | 1     | "13360310"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L8    | 2     | "6570848".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:43 |
| L9    | 4     | "6031821".pn.   | US-PGPUB;<br>USPAT;   | ADJ              | ON      | 2015/03/06<br>19:43 |

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|-----|----|--|---|-----|----|---------------------|
|     |    |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L10 | 6  | L8 or L9   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L11 | 2  | L10 and (weigh\$4)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L12 | 4  | L3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion)                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L13 | 1  | L12 not L6   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L14 | 10 | L3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion or percentage or percent) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L15 | 2  | "6170022".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L16 | 1  | L15 and (percent or percentage or pause)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L17 | 1  | L15 and (percent\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L18 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L19 | 92 | "6788686"  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

|     |   |  |   |     |    |                     |
|-----|---|--|---|-----|----|---------------------|
|     |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L20 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L21 | 5 | L18 or L20   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L22 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L23 | 2 | L21 and (backpressure or back<br>pressure or paus\$3 or halt\$3 or<br>stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L24 | 2 | L23 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L25 | 3 | "20130132573"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L26 | 1 | L25 and (embed\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L27 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L28 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L29 | 5 | L27 or L28   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|-----|---|--|---|-----|----|---------------------|
|     |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L30 | 3 | L29 and (flow)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L31 | 3 | L29 and (flow or (backpressure or back pressure))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L32 | 3 | L29 and (flow or (backpressure or back pressure) or (weigh\$3 or weight))                  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L33 | 1 | L29 and ( (backpressure or back pressure or paus\$3 or halt\$3) with (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L34 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L35 | 1 | L34 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L36 | 1 | L34 and ((weight or weigh\$3) with (back pressure or halt or paus\$3 or stop\$4))          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L37 | 1 | L34 and ((weight or weigh\$3) and (back pressure or halt or paus\$3 or stop\$4))           | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L38 | 2 | "6967923".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L39 | 1 | L38 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |



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|     |        |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L40 | 2      | L29 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L41 | 1      | L29 and ((weight or weigh\$3) with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                      | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L42 | 1      | L29 and ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                      | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L43 | 316404 | ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                              | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L44 | 94795  | ((weight or weigh\$3)with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))                               | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L45 | 4720   | L44 and (flow near2 control)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L46 | 1674   | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L47 | 43     | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure))             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L48 | 49     | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 )) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L49 | 459    | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3)   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |



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|     |       | with (back pressure or<br>backpressure or paus\$3 or halt\$3 or<br>stop\$4 ))                                  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L50 | 1     | "13360310"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L51 | 3     | L48 and (network)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L52 | 75    | L49 and (network)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L53 | 27    | L49 and (network and (packet or<br>frame))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L54 | 23915 | (network and (weight or weigh\$3)<br>same (paus\$3 or halt\$3 or stop\$4<br>or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L55 | 493   | (network and (weight or weigh\$3)<br>with (paus\$3 or backpressure or<br>back pressure))                       | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L56 | 26    | L55 and (network with (flow near2<br>control\$4))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L57 | 166   | L55 and ( (flow near2 control\$4))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L58 | 3     | "20060187945"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L59 | 2     | L58 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|     |    |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L60 | 2  | "20040257997"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L61 | 2  | L60 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L62 | 1  | L60 and ((weight or weigh\$3) with<br>(backpressure or back pressure))                         | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L63 | 14 | "7701957".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L64 | 2  | L63 and (backpressure or back<br>pressure)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L65 | 2  | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L66 | 1  | L65 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L67 | 1  | L65 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure)                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L68 | 1  | L65 and (weight or weigh\$3 or<br>back prssure or pause or<br>backpressure or halt or stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L69 | 1  | L65 and (back)   | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|     |   |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L70 | 1 | L65 and (flow)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L71 | 1 | L65 and (flow and back)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L72 | 1 | L65 and (paus\$3 or stop\$4 or<br>halt\$3 or back)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L73 | 5 | "20020091527"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L74 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L75 | 1 | L74 and (congest\$5)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L76 | 1 | L74 and ( (back pressure or pause<br>or halt\$3 or stop\$4 or<br>backpressure))               | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L77 | 1 | L74 and (congest\$5 and (back<br>pressure or pause or halt\$3 or<br>stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L78 | 2 | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L79 | 1 | L78 and (congest\$5)  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|     |    |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L80 | 1  | L78 and (congest\$5 and (back pressure or pause or halt\$3 or stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L81 | 13 | "7802028".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L82 | 1  | L81 and (congest\$4)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L83 | 1  | L81 and (congest\$4 same (stop\$3 or paus\$3 or stop\$4 or halt\$3))                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L84 | 3  | "20060248242"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L85 | 2  | L84 and (congestion same pause)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L86 | 2  | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L87 | 1  | L86 and (weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L88 | 1  | L86 and (weigh\$3 and (pause or halt\$3 or stop\$4 or backpressure or back pressure))   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L89 | 2  | L84 and (backpressure or back pressure or halt\$3 or stop\$4 or                         | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|     |   | pause)  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L90 | 2 | L84 and ((backpressure or back pressure or halt\$3 or stop\$4 or pause) and (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L91 | 2 | L84 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L92 | 1 | L86 and ((pause or halt\$3 or stop\$4 or backpressure or back pressure))                          | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L93 | 2 | L86 and (threshold or level or limit)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L94 | 2 | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L95 | 1 | L94 and (Flow or pause or stop\$3 or halt\$3 or backpressure or back pressure)                    | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L96 | 2 | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L97 | 1 | L96 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L98 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L99 | 1 | L98 and ((weight or weigh\$3) with (back pressure or backpressure))                               | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|      |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L100 | 1 | L98 and ((weight or weigh\$3) and (back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L101 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L102 | 1 | L101 and (indicator)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L103 | 1 | L94 and (weight or weigh\$3)                                       | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L104 | 1 | L94 and (control\$4)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L105 | 3 | "20060248242"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L106 | 2 | L105 and (control\$4)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L107 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L108 | 1 | L107 and (controller)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L109 | 1 | L96 and (controller with pause or stop\$3 or halt\$3)              | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |



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|      |   |  | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L110 | 1 | L96 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L111 | 1 | L98 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L112 | 1 | L96 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L113 | 1 | L98 and (portion or part )   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L114 | 1 | L94 and (portion)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L115 | 6 | "11907871"   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L116 | 3 | "8130649".pn.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L117 | 2 | L116 and (set near2 weigh\$4)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L118 | 1 | L116 and (set near2 weigh\$4).clm.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L119 | 1 | L116 and (cross\$3 or threshold).clm.  | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |

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|------|-------|---|---|-----|----|---------------------|
|      |       |   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L120 | 1     | "13360310"  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L121 | 1     | L120 and (control\$4)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L122 | 40045 | h04l47/10.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L123 | 5487  | h04l12/5602.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L124 | 2890  | h04l2012/5636.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L125 | 22835 | h04l5/0053.cpc.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L126 | 68391 | L122 or L123 or L124 or L125  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L127 | 33    | L126 and ((weight or weigh\$3) with<br>(paus or halt\$3 or stop\$4 or back<br>pressure or backpressure))  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L128 | 37    | L126 and ((weight or weigh\$3) with<br>(pause or halt\$3 or stop\$4 or back<br>pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L129 | 131   | L126 and ((weight or weigh\$3)<br>same (pause or halt\$3 or stop\$4 or                                    | US-PGPUB;<br>USPAT;   | ADJ | ON | 2015/03/06<br>19:43 |



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|      |       | back pressure or backpressure))   | USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L130 | 72    | L129 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L131 | 54019 | 370/329,335,464,465,468.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L132 | 7966  | L131 and (pause or halt\$3 or<br>stop\$4 or back pressure or<br>backpressure)                             | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L133 | 26    | L131 and ((weight or weigh\$3) with<br>(pause or halt\$3 or stop\$4 or back<br>pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L134 | 2     | L130 and L133   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L135 | 24    | L133 not L134   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L136 | 2     | L135 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |
| L137 | 15    | L135 and (network and flow)   | US-PGPUB;<br>USPAT;<br>USOCR; FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:43 |

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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits  | Search Query   | DBs  | Default Operator | Plurals | Time Stamp       |
|-------|-------|--|--|------------------|---------|------------------|
| L1    | 15791 | (halt\$3 paus\$3 backpressure) and (network with flow)                     | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L2    | 1487  | L1 and (congest\$4 with flow)  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L3    | 85    | L1 and ((halt\$3 paus\$3 backpressure) with (weight or weigh\$3))          | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L4    | 85    | L1 and ((halt\$3 paus\$3 backpressure) with (weight weigh\$3))             | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L5    | 2     | L1 and (( backpressure near5 signal) with (weight weigh\$3))               | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L6    | 33    | L1 and (( backpressure ) with (weight weigh\$3))                           | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L7    | 1     | "13360310"   | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L8    | 80    | L1 and (( backpressure ) same (weight weigh\$3))                           | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L9    | 1468  | L1 and (( backpressure back adj\$3 pressure) same (weight weigh\$3))       | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L10   | 41    | L1 and (( backpressure or back near2 pressure) with (weight or weigh\$3))  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06 19:48 |
| L11   | 15791 | (halt\$3 paus\$3 backpressure) and (network with flow)                     | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR               | ON      | 2015/03/06 19:48 |
| L12   | 111   | L11 and (( backpressure or back near2 pressure) same (weight or weigh\$3)) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06 19:48 |

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| L13 | 2 | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L14 | 1 | L13 and (weight\$3 or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L15 | 1 | L13 and ((weight\$3 or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure )) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L16 | 1 | L13 and ((paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure ))                              | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L17 | 2 | "13330365"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L18 | 2 | L17 and (relative with occupancy)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L19 | 2 | L17 and (relative )  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L20 | 5 | "7023857".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L21 | 1 | L20 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L22 | 9 | "20040015599"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L23 | 2 | L22 and (back pressure or backpressure or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L24 | 2 | L22 and (congest\$5 with message)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L25 | 2 | L22 and (bplut or table )  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L26 | 3 | L22 and (bplut or table or congest\$4)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L27 | 2 | L22 and (back pressure or back pressure)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;                             | ADJ | ON | 2015/03/06<br>19:48 |

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|     |       |   | JPO; DERWENT;<br>IBM_TDB  |     |    |                     |
| L28 | 4     | "7983287".pn.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L29 | 1     | L28 and (weigh\$3 or weight\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L30 | 1     | L28 and ((weigh\$3 or<br>weight\$3) same (backpressure<br>or back pressure or halt\$3 or<br>stop\$4)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L31 | 3     | L22 and (bplut or table or<br>congest\$4 or weigh\$4)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L32 | 9     | "20040015599"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L33 | 2     | L32 and (back pressure or<br>backpressure or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L34 | 2     | L33 and (rate or speed or<br>fast\$3 or slow\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L35 | 3     | L32 and (congest\$4)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L36 | 3     | L32 and (flow with control\$4)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L37 | 2     | L32 and (tpu)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L38 | 15791 | (halt\$3 paus\$3 backpressure)<br>and (network with flow)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L39 | 1487  | L38 and (congest\$4 with flow)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L40 | 85    | L38 and ((halt\$3 paus\$3<br>backpressure) with (weight or<br>weigh\$3))                              | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L41 | 85    | L38 and ((halt\$3 paus\$3<br>backpressure) with (weight<br>weigh\$3))                                 | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |


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| L42 | 2     | L38 and (( backpressure near5 signal) with (weight weigh\$3))  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L43 | 33    | L38 and (( backpressure ) with (weight weigh\$3))  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L44 | 1     | "13360310"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L45 | 80    | L38 and (( backpressure ) same (weight weigh\$3))  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L46 | 1468  | L38 and (( backpressure back adj\$3 pressure) same (weight weigh\$3))                                    | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L47 | 41    | L38 and (( backpressure or back near2 pressure) with (weight or weigh\$3))                               | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L48 | 15791 | (halt\$3 paus\$3 backpressure) and (network with flow)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | OR  | ON | 2015/03/06<br>19:48 |
| L49 | 111   | L48 and (( backpressure or back near2 pressure) same (weight or weigh\$3))                               | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L50 | 2     | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L51 | 1     | L50 and (weight\$3 or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L52 | 1     | L50 and ((weight\$3 or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure )) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L53 | 1     | L50 and ((paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure ))                              | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L54 | 2     | "13330365"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L55 | 2     | L54 and (relative with occupancy)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L56 | 2     | L54 and (relative )  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;                             | ADJ | ON | 2015/03/06<br>19:48 |



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|     |   |   | JPO; DERWENT;<br>IBM_TDB  |     |    |                     |
| L57 | 5 | "7023857".pn.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L58 | 1 | L57 and (weight or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L59 | 9 | "20040015599"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L60 | 2 | L59 and (back pressure or<br>backpressure or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L61 | 2 | L59 and (congest\$5 with<br>message)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L62 | 2 | L59 and (bplut or table )   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L63 | 3 | L59 and (bplut or table or<br>congest\$4)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L64 | 2 | L59 and (back pressure or back<br>pressure)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L65 | 4 | "7983287".pn.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L66 | 1 | L65 and (weigh\$3 or weight\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L67 | 1 | L65 and ((weigh\$3 or<br>weight\$3) same (backpressure<br>or back pressure or halt\$3 or<br>stop\$4)) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L68 | 3 | L59 and (bplut or table or<br>congest\$4 or weigh\$4)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L69 | 9 | "20040015599"   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L70 | 2 | L69 and (back pressure or<br>backpressure or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
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|-----|---|---|---|-----|----|---------------------|
| L71 | 2 | L70 and (rate or speed or fast\$3 or slow\$3) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L72 | 3 | L69 and (congest\$4)                          | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L73 | 3 | L69 and (flow with control\$4)                | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |
| L74 | 2 | L69 and (tpu)                                 | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO;<br>JPO; DERWENT;<br>IBM_TDB | ADJ | ON | 2015/03/06<br>19:48 |

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| <b>Search Notes</b><br><br> | <b>Application/Control No.</b><br><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br><br>MADSEN ET AL. |
|  | <b>Examiner</b><br><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br><br>2462   |

| CPC- SEARCHED |           |          |
|---------------|-----------|----------|
| Symbol        | Date      | Examiner |
| H04L 47/10    | 3/20/2014 | SC       |

| CPC COMBINATION SETS - SEARCHED           |            |          |
|---|------------|----------|
| Symbol                                    | Date       | Examiner |
| H04L 5/0053, H04L 12/5602, H04L 2012/5636 | 03/20/2014 | SC       |

| US CLASSIFICATION SEARCHED |          |            |          |
|----------------------------|----------|------------|----------|
| Class                      | Subclass | Date       | Examiner |
|                            |          | 03/19/2014 |          |

| SEARCH NOTES                                 |            |          |
|--|------------|----------|
| Search Notes                                 | Date       | Examiner |
| EAST search with all databases               |            |          |
| keyword search                               | 03/19/2014 | SC       |
| 370/235,229,464,465,468                      | 03/19/2014 | SC       |
| Assignee and Inventorship Search done        | 03/19/2014 | SC       |
| Updated EAST search                          | 07/15/2014 | SC       |
| UpdatedAssignee and Inventorship Search done | 07/15/2014 | SC       |
| Updated EAST search                          | 08/08/2014 | SC       |
| UpdatedAssignee and Inventorship Search done | 08/08/2014 | SC       |
| Updated EAST search                          | 02/20/2015 | SC       |
| UpdatedAssignee and Inventorship Search done | 02/20/2015 | SC       |

| INTERFERENCE SEARCH     |  |            |          |
|-------------------------|--|------------|----------|
| US Class/<br>CPC Symbol | US Subclass / CPC Group                      | Date       | Examiner |
|                         | Please see the attached EAST search history. | 08/09/2014 | SC       |

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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query   | DBs  | Default Operator | Plurals | Time Stamp          |
|-------|------|--|--|------------------|---------|---------------------|
| L1    | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L2    | 1486 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L3    | 1    | L1 and (speech near2<br>subroutine)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L4    | 2    | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L5    | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L6    | 4    | L4 or L5   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L7    | 3    | L6 and (program or code or<br>instructions or software or<br>computer)       | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L8    | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L9    | 1    | L8 and (program or code or<br>instructions or software or<br>computer)       | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L10   | 1    | L6 and (pause or halt\$3 or<br>stop\$4)                                      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L11   | 2    | L6 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L12   | 92   | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L13   | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L14   | 1    | L13 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L15   | 1    | L5 and (weight or<br>weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/03/06<br>19:37 |
| L16   | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;                     | ADJ              | ON      | 2015/03/06<br>19:37 |

|     |      |  |  |     |    |                     |
|-----|------|--|--|-----|----|---------------------|
|     |      |  | DERWENT; IBM_TDB   |     |    |                     |
| L17 | 1    | L16 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L18 | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L19 | 1486 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L20 | 1    | L18 and (speech near2 subroutine)                                      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L21 | 2    | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L22 | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L23 | 4    | L21 or L22   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L24 | 3    | L23 and (program or code or instructions or software or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L25 | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L26 | 1    | L25 and (program or code or instructions or software or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L27 | 1    | L23 and (pause or halt\$3 or stop\$4)                                  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L28 | 2    | L23 and (pause or halt\$3 or stop\$4 or backpressure or back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L29 | 92   | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L30 | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L31 | 1    | L30 and (pause or halt\$3 or stop\$4 or backpressure or back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L32 | 1    | L22 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L33 | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |
| L34 | 1    | L33 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/03/06<br>19:37 |

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

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|-------|------|------------|
| 76614 | 7590 | 03/20/2015 |
|-------|------|------------|

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 3rd Floor  
 Alexandria, VA 22314

|                    |  |
|--------------------|--|
| EXAMINER           |  |
| CHOUDHRY, SAMINA F |  |

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
| 2462     |              |

|                   |               |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
| 03/20/2015        | ELECTRONIC    |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mail@krameramado.com

|  |                        |                     |  |
|--|------------------------|---------------------|--|
| <b><i>Examiner-Initiated Interview Summary</i></b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|  | 13/360,310             | MADSEN ET AL.       |  |
|  | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|  | SAMINA CHOUDHRY        | 2462                |  |

All participants (applicant, applicant's representative, PTO personnel):

(1) SAMINA CHOUDHRY. (3) \_\_\_\_.

(2) Patric Wamsley. (4) \_\_\_\_.

Date of Interview: 03/16/2015.

Type: ☒ Telephonic ☐ Video Conference  
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.  
If Yes, brief description: \_\_\_\_.

Issues Discussed ☐101 ☐112 ☐102 ☒103 ☐Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: Independent claims and claim 27.

Identification of prior art discussed: \_\_\_\_.

**Substance of Interview**  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Examiner explained to the applicant that prior art rejection was maintained after re-opening the prosecution because both conferees agreed with the prior art rejection. The prosecution was re-opened to address the header and missed limitation for claim 24 in final rejection. Examiner agreed with the applicant that claim 27 is objected to as being dependent upon a rejected base claim, but would be allowable if overcome claim objection and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Applicant recordation instructions:** It is not necessary for applicant to provide a separate record of the substance of interview.

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

|  |  |
|--|--|
| /SAMINA CHOUDHRY/<br>Examiner, Art Unit 2462 |  |
|--|--|

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Alexandria, VA 22314



**Courtesy Reminder for  
Application Serial No: 13/360,310**

Attorney Docket No: ALC 3328-CON

Customer Number: 76614

Date of Electronic Notification: 03/13/2015

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:  
mail@krameramado.com

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|                      |   |                              |
|----------------------|---|------------------------------|
| In re Application of | : | John Madsen, et al.          |
|                      | : |                              |
|                      | : | INGRESS TRAFFIC CONTROL IN A |
|                      | : | DATA COMMUNICATIONS SYSTEM   |
|                      | : |                              |
| Serial No.           | : | 13/360,310                   |
|                      | : |                              |
| Filed                | : | January 27, 2012             |
|                      | : |                              |
| Art Unit             | : | 2462                         |
|                      | : |                              |
| Examiner             | : | Samina F. Choudhry           |
|                      | : |                              |
| Att. Docket          | : | ALC 3328-CON                 |
|                      | : |                              |
| Confirmation No.     | : | 1373                         |

**APPEAL BRIEF**

Mail Stop Appeal Brief Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Appellant respectfully submits this Appeal Brief in response to the Office Action of March 13, 2015, and in support of the Notice of Appeal filed herewith.

**I. REAL PARTY IN INTEREST**

The party in interest is Alcatel Lucent, by way of an Assignment recorded at Reel 027610, frame 0953.

**II. SUMMARY OF CLAIMED SUBJECT MATTER**

The following summary refers to the specification of the present application by paragraph and line numbers.

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Our Ref. No. ALC 3328-CON

The subject matter recited in independent claim 17 includes: “A method performed by a traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) for performing flow control on a flow of data packets for transmission over a link, the method comprising: receiving, by a controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), a backpressure signal (Fig. 1: 40; paragraph [0015], line 2), wherein the backpressure signal (Fig. 1: 40; paragraph [0015], line 2) indicates a period of congestion; determining, by the controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) to be applied to the flow of data packets based on the received backpressure signal (Fig. 1: 40; paragraph [0015], line 2); and adjusting an amount (paragraph [0016], lines 8-10) of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) and a content (Fig. 1: BP; paragraph [0015], line 2) of the backpressure signal (Fig. 1: 40; paragraph [0015], line 2).”

The subject matter recited in independent claim 24 includes: “A traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) comprising: a first rate limiter (Fig. 1: 20; paragraph [0012], line 7) configured to provide an amount (paragraph [0016], lines 8-10) of rate limiting to a first portion of the flow of ingress data packets, the amount (paragraph [0016], lines 8-10) of rate limiting being dependent upon a first weighting factor (Fig. 1: W1; paragraph [0015], line 12); and a controller (Fig. 1: 42; paragraph [0012], line 13) configured to: receive a backpressure signal (Fig. 1: 40; paragraph [0015], line 2), determine a first weighting factor value (Fig. 1: W1; paragraph [0015], line 12) to be applied to the flow of ingress data packets based



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on the received backpressure signal (Fig. 1: 40; paragraph [0015], line 2), and adjust an amount (paragraph [0016], lines 8-10) of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor (Fig. 1: W1; paragraph [0015], line 12) used by the first rate limiter (Fig. 1: 20; paragraph [0012], line 7) based on both the determined first weighting factor value (Fig. 1: W1; paragraph [0015], line 12) and a content (Fig. 1: BP; paragraph [0015], line 2) of the backpressure signal (Fig. 1: 40; paragraph [0015], line 2).”

The subject matter recited in independent claim 30 includes: “A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system (Fig. 1: 10; paragraph [0012], line 1) for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising: instructions for receiving, by a controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), a backpressure signal (Fig. 1: 40; paragraph [0015], line 2), wherein the backpressure signal (Fig. 1: 40; paragraph [0015], line 2) indicates a period of congestion; instructions for determining, by the controller (Fig. 1: 42; paragraph [0012], line 13) of the traffic flow control system (Fig. 1: 10; paragraph [0012], line 1), at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) to be applied to the flow of data packets based on the received backpressure signal (Fig. 1: 40; paragraph [0015], line 2); and instructions for adjusting an amount (paragraph [0016], lines 8-10) of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor (Fig. 1: W1; paragraph [0015], line 12) and a content (Fig. 1: BP; paragraph [0015], line 2) of the backpressure (Fig. 1: 40; paragraph [0015], line 2).”

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Our Ref. No. ALC 3328-CON

### III. ARGUMENT

#### A. Obviousness Rejections of Claims 17-19, 21-23, 30-32, 34-36

On pages 6-11, the Office Action rejects claims 17-19, 21-23, 30-32, and 34-36 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 6,952,424 to Bass et al. (“Bass”) in view of Pub. No. US 2006/0248242 to Andersen et al. (“Andersen”), mistakenly listed as Anderson in the Office Action, and further in view of Pub. No. US2004/0015599 to Trinh et al. (“Trinh”), mistakenly listed at Trinth in the Office Action.

Rejections on obviousness grounds cannot be sustained with mere conclusory statements. Instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. See *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) and M.P.E.P. § 2142. The final Office Action failed to provide articulated reasoning to support its obviousness rejections. Hence, as described below, the final Office Action has failed to present a *prima facie* case of obviousness for any of the rejected claims.

The USPTO bears the initial burden of showing a *prima facie* case of obviousness. See *In re Sullivan*, 498 F.3d 1345, 1351 (Fed. Cir. 2007). When a *prima facie* case of obviousness is made, the burden then shifts to the Applicant to come forward with evidence and/or argument supporting patentability. See *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). Appellant respectfully submits that the final Office Action did not carry the burden in this case.

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1. Independent Claims 17 and 30

Claim 17 recites, in part: “adjusting an **amount of rate limiting** applied to at least a portion of the flow of data packets based on **both** the determined at least one weighting factor and a **content** of the backpressure signal” (emphasis added). Similar subject matter appears in claim 30. Appellant respectfully submits that the references of record fail to disclose, suggest, or teach this subject matter.

On page 7, the Office Action concedes that Bass does not disclose this subject matter. To remedy this deficiency, the Examiner cites various paragraphs from Trinh. However, the Examiner fails to show adjustment of an **amount of rate limiting** based upon the two recited factors.

On page 3, the Examiner alleges that the claim language “does not disclose ‘amount’ means how much amount.” In response, Appellant respectfully submits that the plain meaning of the claim language requires adjustment of the **amount of rate limiting** based on **both** the determined at least one weighting factor and a **content** of the backpressure signal. Both factors determine “how much amount.”

Trinh does not adjust amounts of rate limiting. Instead, of controlling an amount, paragraph [181] of Trinh discloses, for bit 63 of double word zero, “If this bit is set to one, then the flow is valid. Otherwise, when . . . zero, the flow is invalid.” Thus, it alternates between valid and invalid flows rather than adjusting an amount of rate limiting as claimed. Accordingly, Trinh cannot remedy the admitted deficiency of Bass.

Paragraph [0233] of Trinh discloses “flow control information” in the context of “sends flow control information to the egress network processor 624 so that it can inform the ingress network processor 622 not to send data.” Paragraph [0234] of Trinh discloses, in part: “data should

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not be sent to this logical port.” Rather than adjusting an amount of rate limiting, Trinh stops all data at a particular port.

As described above, the final Office Action did not present a *prima facie* case of obviousness. The other references of record fail to remedy the deficiencies of Bass and Trinh. Thus, Appellant respectfully submits that independent claims 17 and 30 are allowable over the references of record and requests withdrawal of the rejections of claims 17 and 30.

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2. Dependent Claims 18, 19, 21-23, 31, 32, and 34-36

Claims 18, 19, and 21-23 depend from claim 17. Claims 31, 32, and 34-36 depend from claim 30. Thus, claims 18, 19, 21-23, 31, 32, and 34-36 are allowable at least due to their respective dependencies from allowable base claims. Therefore, Appellant respectfully requests withdrawal of the rejections of claims 18, 19, 21-23, 31, 32, and 34-36.

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Our Ref. No. ALC 3328-CON

**B. Obviousness Rejections of Claims 24-26, 28, and 29**

On pages 11-17, the Office Action rejects claims 24-29 under 35 U.S.C. § 103(a) as allegedly unpatentable over Bass in view of Andersen, further in view of U.S. Patent No. 6,788,686 to Khotimsky et al. (“Khotimsky”), and even further in view of Trinh. During an interview on March 16, 2015, Examiner Choudhry conceded that claim 27 contained allowable subject matter and should only be “objected to as being dependent upon a rejected base claim.”

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Our Ref. No. ALC 3328-CON

1. Independent Claim 24

Claim 24 recites, in part: “adjust an **amount of rate limiting** applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on **both** the determined first weighting factor value and a **content** of the backpressure signal” (emphasis added). Appellant respectfully submits that the references of record, alone or in combination, fail to disclose, suggest, or teach this subject matter.

On page 13, the Office Action concedes that Bass does not disclose this subject matter. To remedy this admitted deficiency, the Examiner cites various paragraphs from Trinh. However, the Examiner fails to show adjustment of an **amount of rate limiting** based upon the two recited factors. As described above, Trinh alternates between valid and invalid flows rather than adjusting an amount of rate limiting as claimed.

Khotimsky fails to remedy the deficiencies of Bass in view of Andersen, and further in view of Trinh. Thus, Applicant respectfully submits that claim 24 is allowable over the references of record and requests withdrawal of the rejection of claim 24.

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Our Ref. No. ALC 3328-CON

2. Dependent Claims 25, 26, 28, and 29

Claims 25, 26, 28, and 29 depend from claim 24. Thus, claims 25, 26, 28, and 29 are allowable at least due to their dependencies from an allowable base claim. Therefore, Appellant respectfully requests withdrawal of the rejections of claims 25, 26, 28, and 29.



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**CONCLUSION**

For at least the reasons discussed above, Appellant respectfully submits that the rejections are in error, and that claims 17-19, 21-26, 28-32, and 34-36 are in condition for allowance. Therefore, Appellant respectfully requests that this Honorable Board reverse the rejections of claims 17-19, 21-26, 28-32, and 34-36.

Respectfully submitted,  
**KRAMER & AMADO, P.C.**

Date: April 17, 2015

/Terry W. Kramer/  
Terry W. Kramer  
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Our Ref. No. ALC 3328-CON

#### **IV. CLAIMS APPENDIX**

##### **CLAIMS INVOLVED IN THE APPEAL:**

1-16. (Canceled)

17. (Rejected) A method performed by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the method comprising:

receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure signal.

18. (Rejected) The method of claim 17, wherein the step of determining at least one weighting factor comprises:

determining, based on the backpressure signal, a set of weighting factors; and  
the step of adjusting the amount of rate limiting comprises:

adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

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Our Ref. No. ALC 3328-CON

19. (Rejected) The method of claim 17, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

20. (Objected) The method of claim 19, wherein the step of determining at least one weighting factor further comprises:

reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

21. (Rejected) The method of claim 17, further comprising:

receiving the backpressure signal from a downstream data processing unit.

22. (Rejected) The method of claim 17, further comprising:

generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

23. (Rejected) The method of claim 17, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

24. (Rejected) A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system comprising:

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a first rate limiter configured to provide an amount of rate limiting to a first portion of the flow of ingress data packets, the amount of rate limiting being dependent upon a first weighting factor; and

a controller configured to:

receive a backpressure signal,

determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and

adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on both the determined first weighting factor value and a content of the backpressure signal.

25. (Rejected) The traffic flow control system of claim 24, further comprising:

a second rate limiter configured to provide an amount of rate limiting to a second portion of the flow of ingress data packets that is different from the first portion of the flow of ingress data packets, the amount of rate limiting of the second rate limiter being dependent upon a second weighting factor, wherein the controller is further configured to determine a second weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and adjust an amount of rate limiting applied to the second portion of the flow of ingress data packets by adjusting the second weighting factor used by the second rate limiter based on the determined second weighting factor value.

Application No. 13/360,310  
Our Ref. No. ALC 3328-CON

26. (Rejected) The traffic flow control system of claim 24, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

27. (Objected) The traffic flow control system of claim 26, wherein, in determining the first weighting factor value, the controller is configured to read the first weighting factor value from a mapping of various fill level states for the at least one packet queue to various weighting factor values.

28. (Rejected) The traffic flow control system of claim 24, wherein the controller is further configured to generate a traffic preference message for transmission to a source of the flow of ingress data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined first weighting factor value.

29. (Rejected) The traffic flow control system of claim 24, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

30. (Rejected) A non-transitory machine-readable storage medium encoded with instructions for execution by a traffic flow control system for performing flow control on a flow of data packets for transmission over a link, the non-transitory machine-readable storage medium comprising:

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instructions for receiving, by a controller of the traffic flow control system, a backpressure signal, wherein the backpressure signal indicates a period of congestion;

instructions for determining, by the controller of the traffic flow control system, at least one weighting factor to be applied to the flow of data packets based on the received backpressure signal; and

instructions for adjusting an amount of rate limiting applied to at least a portion of the flow of data packets based on both the determined at least one weighting factor and a content of the backpressure.

31. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the instructions for determining at least one weighting factor comprise

instructions for determining, based on the backpressure signal, a set of weighting factors; and

the instructions for adjusting the amount of rate limiting comprise:

instructions for adjusting an amount of rate limiting with respect to a first type of data packet traffic based on a first weighting factor of the set of weighting factors, and

instructions for adjusting an amount of rate limiting with respect to a second type of data packet traffic based on a second weighting factor of the set of weighting factors.

32. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is a backpressure message that indicates a fill level state of at least one packet queue.

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Our Ref. No. ALC 3328-CON

33. (Objected) The non-transitory machine-readable storage medium of claim 32, wherein the instructions for determining at least one weighting factor comprise:

instructions for reading the at least one weighting factor from a mapping of various fill level states for the at least one packet queue to various weighting factors.

34. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the backpressure signal is received from a downstream data processing unit.

35. (Rejected) The non-transitory machine-readable storage medium of claim 30, further comprising:

instructions for generating a traffic preference message for transmission to a source of the flow of data packets, the traffic preference message indicating a type of data packet preferred for transmission over the serial link in accordance with the determined at least one weighting factor.

36. (Rejected) The non-transitory machine-readable storage medium of claim 30, wherein the content of the backpressure message indicates that at least one fill-level threshold for a packet queue has been crossed.

PTO/SB/31 (07-09)

Approved for use through 07/31/2012. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**NOTICE OF APPEAL FROM THE EXAMINER TO  
THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Docket Number (Optional)

ALC 3328-CON

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

on \_\_\_\_\_

Signature \_\_\_\_\_

Typed or printed  
name \_\_\_\_\_In re Application of  
Madsen et al.Application Number  
13/360,310Filed  
January 27, 2012

For Ingress Traffic Control in a Data Communications System

Art Unit  
2462Examiner  
Samina F. ChoudhryApplicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the examiner.

The fee for this Notice of Appeal is (37 CFR 41.20(b)(1))

\$ -0-  
(reinstatement of Appeal)
☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by half, and the resulting fee is:

\$ \_\_\_\_\_

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 50-0578.

☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/SB/22) is enclosed.
**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

I am the

☐ applicant/inventor.

/Terry W. Kramer/

Signature

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

Terry W. Kramer

Typed or printed name

☐ attorney or agent of record.  
Registration number \_\_\_\_\_

(703) 519-9801

Telephone number

☒ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34. 41,541

April 17, 2015

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☒ \*Total of 1 forms are submitted.

This collection of information is required by 37 CFR 41.31. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



## Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 22098408   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/wendy spradin                             |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 17-APR-2015  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 16:37:49   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

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**File Listing:**

| Document Number | Document Description | File Name        | File Size(Bytes)/<br>Message Digest              | Multi Part /.zip | Pages (if appl.) |
|-----------------|----------------------|------------------|--|------------------|------------------|
| 1               | Appeal Brief Filed   | Appeal_Brief.pdf | 126495<br>b87c6337530d55cb74981c27ed35705c6e7d87 | no               | 17               |

**Warnings:****Information:**

|   |                        |                     |  |        |   |
|---|------------------------|---------------------|--|--------|---|
| 2   | Notice of Appeal Filed | NOT_APPEAL_2015.pdf | 329152<br>8272f39ee0b9c17947195fb6f10d44ef9796d3e2 | no     | 2 |
| <b>Warnings:</b>  |                        |                     |  |        |   |
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| <b>Total Files Size (in bytes):</b>   |                        |                     |  | 455647 |   |
| <p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> <b>If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</b></p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> <b>If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</b></p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> <b>If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</b></p> |                        |                     |  |        |   |



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## NOTICE OF ALLOWANCE AND FEE(S) DUE

76614 7590 10/08/2015  
 Terry W. Kramer, Esq.  
 Kramer & Amado, P.C.  
 330 John Carlyle Street  
 3rd Floor  
 Alexandria, VA 22314

EXAMINER

CHOUDHRY, SAMINA F

ART UNIT

PAPER NUMBER

2462

DATE MAILED: 10/08/2015

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

13/360,310

01/27/2012

John Madsen

ALC 3328-CON

1373

TITLE OF INVENTION: INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | UNDISCOUNTED  | \$960         | \$0                 | \$0                  | \$960            | 01/08/2016 |

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

## HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**  
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**P.O. Box 1450**  
**Alexandria, Virginia 22313-1450**  
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

76614 7590 10/08/2015  
**Terry W. Kramer, Esq.**  
**Kramer & Amado, P.C.**  
**330 John Carlyle Street**  
**3rd Floor**  
**Alexandria, VA 22314**

## Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

|                    |
|--------------------|
| (Depositor's name) |
| (Signature)        |
| (Date)             |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

TITLE OF INVENTION: INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | UNDISCOUNTED  | \$960         | \$0                 | \$0                  | \$960            | 01/08/2016 |

| EXAMINER           | ART UNIT | CLASS-SUBCLASS |
|--------------------|----------|----------------|
| CHOUDHRY, SAMINA F | 2462     | 370-235000     |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_



## UNITED STATES PATENT AND TRADEMARK OFFICE

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 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

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 Alexandria, VA 22314

|          |
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| EXAMINER |
|----------|

CHOUDHRY, SAMINA F

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2462

DATE MAILED: 10/08/2015

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**  
 (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.** Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

### Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

|  |                        |                     |  |
|--|------------------------|---------------------|--|
| <b><i>Examiner-Initiated Interview Summary</i></b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|  | 13/360,310             | MADSEN ET AL.       |  |
|  | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|  | SAMINA CHOUDHRY        | 2462                |  |

All participants (applicant, applicant's representative, PTO personnel):

(1) SAMINA CHOUDHRY. (3) \_\_\_\_.

(2) Patric Wamsley. (4) \_\_\_\_.

Date of Interview: 29 September 2015.

Type: ☒ Telephonic ☐ Video Conference  
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☐ No.  
If Yes, brief description: \_\_\_\_.

Issues Discussed ☒ 101 ☐ 112 ☐ 102 ☐ 103 ☐ Others  
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 24.

Identification of prior art discussed: \_\_\_\_.

**Substance of Interview**  
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Examiner proposed claim amendment to overcome 101 issues. Applicant agreed with the proposed amendment.

**Applicant recordation instructions:** It is not necessary for applicant to provide a separate record of the substance of interview.

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

|  |  |
|--|--|
| /SAMINA CHOUDHRY/<br>Primary Examiner, Art Unit 2462 |  |
|--|--|



|                               |                                      |                                      |  |
|-------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Notice of Allowability</b> | <b>Application No.</b><br>13/360,310 | <b>Applicant(s)</b><br>MADSEN ET AL. |  |
|                               | <b>Examiner</b><br>SAMINA CHOUDHRY   | <b>Art Unit</b><br>2462              | <b>AIA (First Inventor to File) Status</b><br>No |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 08/12/2014.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are 17-36. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

a) ☐ All    b) ☐ Some    \*c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

|  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date ____</li> <li>3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> <li>4. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>09/29/2015</u>.</li> </ol> | <ol style="list-style-type: none"> <li>5. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>6. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>7. <input type="checkbox"/> Other ____.</li> </ol> |
|--|---|

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| /SAMINA CHOUDHRY/<br>Primary Examiner, Art Unit 2462 |  |
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Application/Control Number: 13/360,310  
Art Unit: 2462

Page 2

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for examiner's amendment was given in a telephone interview with the attorney of record, Mr. Wamsley on September 29, 2015. The application has been amended as follows:

2. In the Claims

24. (Currently Amended) A traffic flow control system for controlling a flow of ingress data packets to be transmitted over a link, the traffic flow control system comprising:  
a first rate limiter configured to provide an amount of rate limiting to a first portion of the flow of ingress data packets, the amount of rate limiting being dependent upon a first weighting factor; and  
a controller, where in the controller comprises a processor, configured to:  
receive a backpressure signal,  
determine a first weighting factor value to be applied to the flow of ingress data packets based on the received backpressure signal, and  
adjust an amount of rate limiting applied to the first portion of the flow of ingress data packets by adjusting the first weighting factor used by the first rate limiter based on both the determined first weighting factor value and a content of the backpressure signal.

### *Conclusion*

Application/Control Number: 13/360,310

Page 3

Art Unit: 2462

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SAMINA CHOUDHRY whose telephone number is (571)270-7102. The examiner can normally be reached on Monday to Thursday (7:30 a.m. to 5.00p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yemane Mesfin can be reached on (571)272-3927. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SAMINA CHOUDHRY/

Primary Examiner, Art Unit 2462

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|--|------------------------|---------------------|--|
| <b><i>Examiner-Initiated Interview Summary</i></b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
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|  | SAMINA CHOUDHRY        | 2462                |  |

All participants (applicant, applicant's representative, PTO personnel):

(1) SAMINA CHOUDHRY. (3) \_\_\_\_.

(2) Patric Wamsley. (4) \_\_\_\_.

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If Yes, brief description: \_\_\_\_.

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☐ Attachment

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| /SAMINA CHOUDHRY/<br>Primary Examiner, Art Unit 2462 |  |
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## UNITED STATES PATENT AND TRADEMARK OFFICE

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 Alexandria, Virginia 22313-1450  
 www.uspto.gov

## BIB DATA SHEET

CONFIRMATION NO. 1373

| SERIAL NUMBER   | FILING or 371(c)<br>DATE  | CLASS                                 | GROUP ART UNIT  | ATTORNEY DOCKET<br>NO.        |                                    |
|---|---|---------------------------------------|---|-------------------------------|------------------------------------|
| 13/360,310  | 01/27/2012  | 370                                   | 2462  | ALC 3328-CON                  |                                    |
| <b>RULE</b>   |   |                                       |   |                               |                                    |
| <b>APPLICANTS</b><br><b>INVENTORS</b><br>John Madsen, Ottawa, CANADA;<br>Joey Chow, Nepean, CANADA;<br>Dion Pike, Stittsville, CANADA;<br><b>** CONTINUING DATA *****</b><br>This application is a CON of 11/907,871 10/18/2007 PAT 8130649<br><b>** FOREIGN APPLICATIONS *****</b><br><b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **</b><br>02/07/2012 |   |                                       |   |                               |                                    |
| Foreign Priority claimed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>35 USC 119(a-d) conditions met <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Verified and /SAMINA F<br>CHOUHRY/<br>Acknowledged Examiner's Signature   | <input type="checkbox"/> Met after Allowance<br>Initials  | <b>STATE OR<br/>COUNTRY</b><br>CANADA | <b>SHEETS<br/>DRAWINGS</b><br>1   | <b>TOTAL<br/>CLAIMS</b><br>20 | <b>INDEPENDENT<br/>CLAIMS</b><br>3 |
| <b>ADDRESS</b><br>Terry W. Kramer, Esq.<br>Kramer & Amado, P.C.<br>330 John Carlyle Street<br>3rd Floor<br>Alexandria, VA 22314<br>UNITED STATES  |   |                                       |   |                               |                                    |
| <b>TITLE</b><br>INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM  |   |                                       |   |                               |                                    |
| <b>FILING FEE<br/>RECEIVED</b><br>1250  | FEES: Authority has been given in Paper<br>No. _____ to charge/credit DEPOSIT ACCOUNT<br>No. _____ for following: |                                       | <input type="checkbox"/> All Fees<br><input type="checkbox"/> 1.16 Fees (Filing)<br><input type="checkbox"/> 1.17 Fees (Processing Ext. of time)<br><input type="checkbox"/> 1.18 Fees (Issue)<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> Credit |                               |                                    |

|  |  |   |
|--|--|---|
| <b>Search Notes</b><br><br> | <b>Application/Control No.</b><br><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br><br>MADSEN ET AL. |
|  | <b>Examiner</b><br><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br><br>2462   |

| CPC- SEARCHED        |            |          |
|----------------------|------------|----------|
| Symbol               | Date       | Examiner |
| H04L 47/10           | 3/20/2014  | SC       |
| Updated above search | 09/21/2015 | SC       |

| CPC COMBINATION SETS - SEARCHED           |            |          |
|---|------------|----------|
| Symbol                                    | Date       | Examiner |
| H04L 5/0053, H04L 12/5602, H04L 2012/5636 | 03/20/2014 | SC       |
| Updated above search                      | 09/21/2015 | SC       |

| US CLASSIFICATION SEARCHED |          |            |          |
|----------------------------|----------|------------|----------|
| Class                      | Subclass | Date       | Examiner |
|                            |          | 03/19/2014 |          |

| SEARCH NOTES                                 |            |          |
|--|------------|----------|
| Search Notes                                 | Date       | Examiner |
| EAST search with all databases               |            |          |
| keyword search                               | 03/19/2014 | SC       |
| 370/235,229,464,465,468                      | 03/19/2014 | SC       |
| Assignee and Inventorship Search done        | 03/19/2014 | SC       |
| Updated EAST search                          | 07/15/2014 | SC       |
| UpdatedAssignee and Inventorship Search done | 07/15/2014 | SC       |
| Updated EAST search                          | 08/08/2014 | SC       |
| UpdatedAssignee and Inventorship Search done | 08/08/2014 | SC       |
| Updated EAST search                          | 02/20/2015 | SC       |
| UpdatedAssignee and Inventorship Search done | 02/20/2015 | SC       |
| Updated EAST search                          | 09/22/2015 | SC       |
| UpdatedAssignee and Inventorship Search      | 09/22/2015 | SC       |

| INTERFERENCE SEARCH |
|---------------------|
|---------------------|

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| US Class/<br>CPC Symbol | US Subclass / CPC Group                      | Date       | Examiner |
|-------------------------|--|------------|----------|
|                         | Please see the attached EAST search history. | 08/09/2014 | SC       |
|                         | Update above search.                         | 09/23/2015 | SC       |

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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits | Search Query   | DBs  | Default Operator | Plurals | Time Stamp          |
|-------|------|--|--|------------------|---------|---------------------|
| L1    | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L2    | 1564 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L3    | 1    | L1 and (speech near2<br>subroutine)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L4    | 2    | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L5    | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L6    | 4    | L4 or L5   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L7    | 3    | L6 and (program or code or<br>instructions or software or<br>computer)       | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L8    | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L9    | 1    | L8 and (program or code or<br>instructions or software or<br>computer)       | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L10   | 1    | L6 and (pause or halt\$3 or<br>stop\$4)                                      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L11   | 2    | L6 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L12   | 95   | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L13   | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L14   | 1    | L13 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L15   | 1    | L5 and (weight or weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:23 |
| L16   | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;                     | ADJ              | ON      | 2015/09/30<br>00:23 |



|     |      |  |  |     |    |                     |
|-----|------|--|--|-----|----|---------------------|
|     |      |  | DERWENT; IBM_TDB   |     |    |                     |
| L17 | 1    | L16 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L18 | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L19 | 1564 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L20 | 1    | L18 and (speech near2 subroutine)                                      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L21 | 2    | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L22 | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L23 | 4    | L21 or L22   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L24 | 3    | L23 and (program or code or instructions or software or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L25 | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L26 | 1    | L25 and (program or code or instructions or software or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L27 | 1    | L23 and (pause or halt\$3 or stop\$4)                                  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L28 | 2    | L23 and (pause or halt\$3 or stop\$4 or backpressure or back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L29 | 95   | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L30 | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L31 | 1    | L30 and (pause or halt\$3 or stop\$4 or backpressure or back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L32 | 1    | L22 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L33 | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L34 | 1    | L33 and (weight or weigh\$3)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L35 | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;                     | ADJ | ON | 2015/09/30<br>00:23 |

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|     |      |  | DERWENT; IBM_TDB   |     |    |                     |
| L36 | 1564 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L37 | 1    | L35 and (speech near2<br>subroutine)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L38 | 2    | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L39 | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L40 | 4    | L38 or L39   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L41 | 3    | L40 and (program or code<br>or instructions or software<br>or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L42 | 2    | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L43 | 1    | L42 and (program or code<br>or instructions or software<br>or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L44 | 1    | L40 and (pause or halt\$3 or<br>stop\$4)                                     | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L45 | 2    | L40 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L46 | 95   | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L47 | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L48 | 1    | L47 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L49 | 1    | L39 and (weight or<br>weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L50 | 3    | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L51 | 1    | L50 and (weight or<br>weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L52 | 5    | "20020091527"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L53 | 1564 | harper.xp.   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L54 | 1    | L52 and (speech near2<br>subroutine)   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;                     | ADJ | ON | 2015/09/30<br>00:23 |

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|     |    |  | DERWENT; IBM_TDB   |     |    |                     |
| L55 | 2  | "6952424".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L56 | 2  | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L57 | 4  | L55 or L56   | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L58 | 3  | L57 and (program or code<br>or instructions or software<br>or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L59 | 2  | "6324165".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L60 | 1  | L59 and (program or code<br>or instructions or software<br>or computer)      | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L61 | 1  | L57 and (pause or halt\$3 or<br>stop\$4)                                     | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L62 | 2  | L57 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L63 | 95 | "6788686"  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L64 | 3  | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L65 | 1  | L64 and (pause or halt\$3 or<br>stop\$4 or backpressure or<br>back pressure) | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L66 | 1  | L56 and (weight or<br>weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L67 | 3  | "6788686".pn.  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |
| L68 | 1  | L67 and (weight or<br>weigh\$3)  | US-PGPUB; USPAT;<br>USOCR; FPRS; EPO; JPO;<br>DERWENT; IBM_TDB | ADJ | ON | 2015/09/30<br>00:23 |

9/ 30/ 2015 12:26:03 AM

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**EAST Search History****EAST Search History (Prior Art)**

| Ref # | Hits  | Search Query  | DBs  | Default Operator | Plurals | Time Stamp          |
|-------|-------|---|--|------------------|---------|---------------------|
| L1    | 10662 | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3)                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L2    | 1029  | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3) same (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L3    | 496   | (back pressure or paus\$3 or halt\$3 or stop\$4) with (congestion or congest\$3) with (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L4    | 98000 | (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L5    | 3     | L3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L6    | 3     | L3 and ((back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight))                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L7    | 1     | "13360310"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ              | ON      | 2015/09/30<br>00:14 |
| L8    | 2     | "6570848".pn.   | US-PGPUB;  | ADJ              | ON      | 2015/09/30          |

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|     |    |  | USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB              |     |    | 00:14               |
| L9  | 4  | "6031821".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L10 | 6  | L8 or L9   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L11 | 2  | L10 and (weigh\$4)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L12 | 5  | L3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion)                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L13 | 2  | L12 not L6   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L14 | 11 | L3 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight or proportion or percentage or percent) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L15 | 2  | "6170022".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L16 | 1  | L15 and (percent or percentage or pause)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;            | ADJ | ON | 2015/09/30<br>00:14 |

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|     |    |  | IBM_TDB  |     |    |                     |
| L17 | 1  | L15 and (percent\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L18 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L19 | 95 | "6788686"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L20 | 3  | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L21 | 5  | L18 or L20   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L22 | 2  | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L23 | 2  | L21 and (backpressure or back<br>pressure or paus\$3 or halt\$3 or<br>stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L24 | 2  | L23 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L25 | 3  | "20130132573"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;                                | ADJ | ON | 2015/09/30<br>00:14 |



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|     |   |  | JPO;<br>DERWENT;<br>IBM_TDB  |     |    |                     |
| L26 | 1 | L25 and (embed\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L27 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L28 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L29 | 5 | L27 or L28   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L30 | 3 | L29 and (flow)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L31 | 3 | L29 and (flow or (backpressure or back pressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L32 | 3 | L29 and (flow or (backpressure or back pressure) or (weigh\$3 or weight))                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L33 | 1 | L29 and ( (backpressure or back pressure or paus\$3 or halt\$3) with (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L34 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT;  | ADJ | ON | 2015/09/30<br>00:14 |

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|     |   |  | USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L35 | 1 | L34 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L36 | 1 | L34 and ((weight or weigh\$3) with<br>(back pressure or halt or paus\$3 or<br>stop\$4))                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L37 | 1 | L34 and ((weight or weigh\$3) and<br>(back pressure or halt or paus\$3 or<br>stop\$4))                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L38 | 2 | "6967923".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L39 | 1 | L38 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L40 | 2 | L29 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L41 | 1 | L29 and ((weight or weigh\$3) with<br>(paus\$3 or halt\$3 or stop\$4 or<br>backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L42 | 1 | L29 and ((weight or weigh\$3) same<br>(paus\$3 or halt\$3 or stop\$4 or<br>backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |



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| L43 | 325879 | ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L44 | 98371  | ((weight or weigh\$3)with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L45 | 4849   | L44 and (flow near2 control)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L46 | 1719   | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L47 | 43     | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure))                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L48 | 49     | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 ))                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L49 | 465    | L45 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 or halt\$3 or stop\$4 )) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L50 | 1      | "13360310"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L51 | 3      | L48 and (network)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;                        | ADJ | ON | 2015/09/30<br>00:14 |

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|     |       |  | DERWENT;<br>IBM_TDB  |     |    |                     |
| L52 | 77    | L49 and (network)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L53 | 27    | L49 and (network and (packet or frame))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L54 | 25350 | (network and (weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L55 | 538   | (network and (weight or weigh\$3) with (paus\$3 or backpressure or back pressure))                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L56 | 26    | L55 and (network with (flow near2 control\$4))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L57 | 173   | L55 and ( (flow near2 control\$4))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L58 | 3     | "20060187945"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L59 | 2     | L58 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L60 | 2     | "20040257997"  | US-PGPUB;<br>USPAT;<br>USOCR;  | ADJ | ON | 2015/09/30<br>00:14 |

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|     |    |  | FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                                  |     |    |                     |
| L61 | 2  | L60 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L62 | 1  | L60 and ((weight or weigh\$3) with<br>(backpressure or back pressure))                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L63 | 14 | "7701957".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L64 | 2  | L63 and (backpressure or back<br>pressure)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L65 | 2  | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L66 | 1  | L65 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L67 | 1  | L65 and (weight or weigh\$3 or back<br>prssure or pause or backpressure)                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L68 | 1  | L65 and (weight or weigh\$3 or back<br>prssure or pause or backpressure<br>or halt or stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L69 | 1  | L65 and (back)   | US-PGPUB;  | ADJ | ON | 2015/09/30          |

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|     |   |   | USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB              |     |    | 00:14               |
| L70 | 1 | L65 and (flow)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L71 | 1 | L65 and (flow and back)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L72 | 1 | L65 and (paus\$3 or stop\$4 or<br>halt\$3 or back)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L73 | 5 | "20020091527"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L74 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L75 | 1 | L74 and (congest\$5)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L76 | 1 | L74 and ( (back pressure or pause<br>or halt\$3 or stop\$4 or<br>backpressure))               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L77 | 1 | L74 and (congest\$5 and (back<br>pressure or pause or halt\$3 or<br>stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;            | ADJ | ON | 2015/09/30<br>00:14 |

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|     |    |   | IBM_TDB  |     |    |                     |
| L78 | 2  | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L79 | 1  | L78 and (congest\$5)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L80 | 1  | L78 and (congest\$5 and (back<br>pressure or pause or halt\$3 or<br>stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L81 | 13 | "7802028".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L82 | 1  | L81 and (congest\$4)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L83 | 1  | L81 and (congest\$4 same (stop\$3<br>or paus\$3 or stop\$4 or halt\$3))                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L84 | 3  | "20060248242"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L85 | 2  | L84 and (congestion same pause)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L86 | 2  | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;                                | ADJ | ON | 2015/09/30<br>00:14 |

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|     |   |   | JPO;<br>DERWENT;<br>IBM_TDB  |     |    |                     |
| L87 | 1 | L86 and (weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L88 | 1 | L86 and (weigh\$3 and (pause or halt\$3 or stop\$4 or backpressure or back pressure))             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L89 | 2 | L84 and (backpressure or back pressure or halt\$3 or stop\$4 or pause)                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L90 | 2 | L84 and ((backpressure or back pressure or halt\$3 or stop\$4 or pause) and (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L91 | 2 | L84 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L92 | 1 | L86 and ((pause or halt\$3 or stop\$4 or backpressure or back pressure))                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L93 | 2 | L86 and (threshold or level or limit)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L94 | 2 | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L95 | 1 | L94 and (Flow or pause or stop\$3 or halt\$3 or backpressure or back                              | US-PGPUB;<br>USPAT;  | ADJ | ON | 2015/09/30<br>00:14 |

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|      |   | pressure)  | USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L96  | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L97  | 1 | L96 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L98  | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L99  | 1 | L98 and ((weight or weigh\$3) with<br>(back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L100 | 1 | L98 and ((weight or weigh\$3) and<br>(back pressure or backpressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L101 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L102 | 1 | L101 and (indicator)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L103 | 1 | L94 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |



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| L104 | 1 | L94 and (control\$4)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L105 | 3 | "20060248242"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L106 | 2 | L105 and (control\$4)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L107 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L108 | 1 | L107 and (controller)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L109 | 1 | L96 and (controller with pause or stop\$3 or halt\$3)                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L110 | 1 | L96 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L111 | 1 | L98 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L112 | 1 | L96 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;                        | ADJ | ON | 2015/09/30<br>00:14 |



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|      |   |  | DERWENT;<br>IBM_TDB  |     |    |                     |
| L113 | 1 | L98 and (portion or part )               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L114 | 1 | L94 and (portion)                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L115 | 6 | "11907871"                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L116 | 3 | "8130649".pn.                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L117 | 2 | L116 and (set near2 weigh\$4)            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L118 | 1 | L116 and (set near2 weigh\$4).clm.       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L119 | 1 | L116 and (cross\$3 or<br>threshold).clm. | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L120 | 1 | "13360310"                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L121 | 1 | L120 and (control\$4)                    | US-PGPUB;<br>USPAT;<br>USOCR;  | ADJ | ON | 2015/09/30<br>00:14 |

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|      |       |   | FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                                  |     |    |                     |
| L122 | 41460 | h04l47/10.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L123 | 5612  | h04l12/5602.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L124 | 2917  | h04l2012/5636.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L125 | 27295 | h04l5/0053.cpc.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L126 | 74333 | L122 or L123 or L124 or L125  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L127 | 35    | L126 and ((weight or weigh\$3) with<br>(paus or halt\$3 or stop\$4 or back<br>pressure or backpressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L128 | 39    | L126 and ((weight or weigh\$3) with<br>(pause or halt\$3 or stop\$4 or back<br>pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L129 | 137   | L126 and ((weight or weigh\$3)<br>same (pause or halt\$3 or stop\$4 or<br>back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L130 | 75    | L129 and (network with flow)  | US-PGPUB;  | ADJ | ON | 2015/09/30          |

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|      |       |   | USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB              |     |    | 00:14               |
| L131 | 59866 | 370/329,335,464,465,468.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L132 | 8614  | L131 and (pause or halt\$3 or stop\$4 or back pressure or backpressure)                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L133 | 27    | L131 and ((weight or weigh\$3) with (pause or halt\$3 or stop\$4 or back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L134 | 2     | L130 and L133   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L135 | 25    | L133 not L134   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L136 | 2     | L135 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L137 | 15    | L135 and (network and flow)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L138 | 10662 | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3)                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;            | ADJ | ON | 2015/09/30<br>00:14 |

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|      |       |   | IBM_TDB  |     |    |                     |
| L139 | 1029  | (back pressure or paus\$3 or halt\$3 or stop\$4) same (congestion or congest\$3) same (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L140 | 496   | (back pressure or paus\$3 or halt\$3 or stop\$4) with (congestion or congest\$3) with (flow near2 control\$3) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L141 | 98000 | (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L142 | 3     | L140 and (back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight)                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L143 | 3     | L140 and ((back pressure or paus\$3 or halt\$3 or stop\$4) with (weigh\$3 or weight))                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L144 | 1     | "13360310"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L145 | 2     | "6570848".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L146 | 4     | "6031821".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L147 | 6     | L145 or L146  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;                                | ADJ | ON | 2015/09/30<br>00:14 |

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|      |    |   | JPO;<br>DERWENT;<br>IBM_TDB  |     |    |                     |
| L148 | 2  | L147 and (weigh\$4)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L149 | 5  | L140 and (back pressure or paus\$3<br>or halt\$3 or stop\$4) with (weigh\$3<br>or weight or proportion)                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L150 | 2  | L149 not L143   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L151 | 11 | L140 and (back pressure or paus\$3<br>or halt\$3 or stop\$4) with (weigh\$3<br>or weight or proportion or<br>percentage or percent) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L152 | 2  | "6170022".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L153 | 1  | L152 and (percent or percentage or<br>pause)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L154 | 1  | L152 and (percent\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L155 | 2  | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L156 | 95 | "6788686"   | US-PGPUB;<br>USPAT;  | ADJ | ON | 2015/09/30<br>00:14 |

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|      |   |   | USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L157 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L158 | 5 | L155 or L157  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L159 | 2 | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L160 | 2 | L158 and (backpressure or back<br>pressure or paus\$3 or halt\$3 or<br>stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L161 | 2 | L160 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L162 | 3 | "20130132573"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L163 | 1 | L162 and (embed\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L164 | 2 | "6324165".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |

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| L165 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L166 | 5 | L164 or L165  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L167 | 3 | L166 and (flow)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L168 | 3 | L166 and (flow or (backpressure or back pressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L169 | 3 | L166 and (flow or (backpressure or back pressure) or (weigh\$3 or weight))                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L170 | 1 | L166 and ( (backpressure or back pressure or paus\$3 or halt\$3) with (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L171 | 2 | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L172 | 1 | L171 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L173 | 1 | L171 and ((weight or weigh\$3) with (back pressure or halt or paus\$3 or stop\$4))          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;                        | ADJ | ON | 2015/09/30<br>00:14 |



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|      |        |   | DERWENT;<br>IBM_TDB  |     |    |                     |
| L174 | 1      | L171 and ((weight or weigh\$3) and (back pressure or halt or paus\$3 or stop\$4))                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L175 | 2      | "6967923".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L176 | 1      | L175 and (weight\$3 or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L177 | 2      | L166 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L178 | 1      | L166 and ((weight or weigh\$3) with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L179 | 1      | L166 and ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L180 | 325879 | ((weight or weigh\$3) same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L181 | 98371  | ((weight or weigh\$3)with (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L182 | 4849   | L181 and (flow near2 control)   | US-PGPUB;<br>USPAT;<br>USOCR;  | ADJ | ON | 2015/09/30<br>00:14 |



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|      |       |  | FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                                  |     |    |                     |
| L183 | 1719  | L182 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L184 | 43    | L182 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure))                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L185 | 49    | L182 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 ))                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L186 | 465   | L182 and ((adjust\$3 or chang\$3 or modif\$5) with ( weight or weigh\$3) with (back pressure or backpressure or paus\$3 or halt\$3 or stop\$4 )) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L187 | 1     | "13360310"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L188 | 3     | L185 and (network)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L189 | 77    | L186 and (network)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L190 | 27    | L186 and (network and (packet or frame))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L191 | 25350 | (network and (weight or weigh\$3)  | US-PGPUB;  | ADJ | ON | 2015/09/30          |

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|      |     | same (paus\$3 or halt\$3 or stop\$4 or backpressure or back pressure))             | USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB              |     |    | 00:14               |
| L192 | 538 | (network and (weight or weigh\$3) with (paus\$3 or backpressure or back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L193 | 26  | L192 and (network with (flow near2 control\$4))                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L194 | 173 | L192 and ( (flow near2 control\$4))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L195 | 3   | "20060187945"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L196 | 2   | L195 and (weight\$3 or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L197 | 2   | "20040257997"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L198 | 2   | L197 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L199 | 1   | L197 and ((weight or weigh\$3) with (backpressure or back pressure))               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;            | ADJ | ON | 2015/09/30<br>00:14 |

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|      |    |   | IBM_TDB  |     |    |                     |
| L200 | 14 | "7701957".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L201 | 2  | L200 and (backpressure or back pressure)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L202 | 2  | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L203 | 1  | L202 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L204 | 1  | L202 and (weight or weigh\$3 or back prssure or pause or backpressure)                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L205 | 1  | L202 and (weight or weigh\$3 or back prssure or pause or backpressure or halt or stop\$4) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L206 | 1  | L202 and (back)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L207 | 1  | L202 and (flow)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L208 | 1  | L202 and (flow and back)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;                                | ADJ | ON | 2015/09/30<br>00:14 |

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|      |   |  | JPO;<br>DERWENT;<br>IBM_TDB  |     |    |                     |
| L209 | 1 | L202 and (paus\$3 or stop\$4 or halt\$3 or back)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L210 | 5 | "20020091527"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L211 | 3 | "6788686".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L212 | 1 | L211 and (congest\$5)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L213 | 1 | L211 and ( (back pressure or pause or halt\$3 or stop\$4 or backpressure))               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L214 | 1 | L211 and (congest\$5 and (back pressure or pause or halt\$3 or stop\$4 or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L215 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L216 | 1 | L215 and (congest\$5)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L217 | 1 | L215 and (congest\$5 and (back pressure or pause or halt\$3 or                           | US-PGPUB;<br>USPAT;  | ADJ | ON | 2015/09/30<br>00:14 |

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|      |    | stop\$4 or backpressure))  | USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                        |     |    |                     |
| L218 | 13 | "7802028".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L219 | 1  | L218 and (congest\$4)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L220 | 1  | L218 and (congest\$4 same (stop\$3<br>or paus\$3 or stop\$4 or halt\$3))                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L221 | 3  | "20060248242"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L222 | 2  | L221 and (congestion same pause)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L223 | 2  | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L224 | 1  | L223 and (weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L225 | 1  | L223 and (weigh\$3 and (pause or<br>halt\$3 or stop\$4 or backpressure or<br>back pressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |

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| L226 | 2 | L221 and (backpressure or back pressure or halt\$3 or stop\$4 or pause)                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L227 | 2 | L221 and ((backpressure or back pressure or halt\$3 or stop\$4 or pause) and (weigh\$3 or weight)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L228 | 2 | L221 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L229 | 1 | L223 and ((pause or halt\$3 or stop\$4 or backpressure or back pressure))                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L230 | 2 | L223 and (threshold or level or limit)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L231 | 2 | "6952424".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L232 | 1 | L231 and (Flow or pause or stop\$3 or halt\$3 or backpressure or back pressure)                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L233 | 2 | "6324165".pn.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L234 | 1 | L233 and (weight or weigh\$3)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;                        | ADJ | ON | 2015/09/30<br>00:14 |

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|      |   |   | DERWENT;<br>IBM_TDB  |     |    |                     |
| L235 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L236 | 1 | L235 and ((weight or weigh\$3) with<br>(back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L237 | 1 | L235 and ((weight or weigh\$3) and<br>(back pressure or backpressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L238 | 2 | "6952424".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L239 | 1 | L238 and (indicator)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L240 | 1 | L231 and (weight or weigh\$3)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L241 | 1 | L231 and (control\$4)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L242 | 3 | "20060248242"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L243 | 2 | L242 and (control\$4)   | US-PGPUB;<br>USPAT;<br>USOCR;  | ADJ | ON | 2015/09/30<br>00:14 |



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|      |   |   | FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB                                  |     |    |                     |
| L244 | 3 | "6788686".pn.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L245 | 1 | L244 and (controller)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L246 | 1 | L233 and (controller with pause or stop\$3 or halt\$3)                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L247 | 1 | L233 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L248 | 1 | L235 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L249 | 1 | L233 and (controller with pause or stop\$3 or halt\$3 or back pressure or backpressure) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L250 | 1 | L235 and (portion or part )   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L251 | 1 | L231 and (portion)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L252 | 6 | "11907871"  | US-PGPUB;  | ADJ | ON | 2015/09/30          |



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|      |       |  | USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB              |     |    | 00:14               |
| L253 | 3     | "8130649".pn.                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L254 | 2     | L253 and (set near2 weigh\$4)            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L255 | 1     | L253 and (set near2 weigh\$4).clm.       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L256 | 1     | L253 and (cross\$3 or<br>threshold).clm. | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L257 | 1     | "13360310"                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L258 | 1     | L257 and (control\$4)                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L259 | 41460 | h04l47/10.cpc.                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L260 | 5612  | h04l12/5602.cpc.                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;            | ADJ | ON | 2015/09/30<br>00:14 |

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| L261 | 2917  | h04I2012/5636.cpc.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L262 | 27295 | h04I5/0053.cpc.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L263 | 74333 | L259 or L260 or L261 or L262  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L264 | 35    | L263 and ((weight or weigh\$3) with<br>(paus or halt\$3 or stop\$4 or back<br>pressure or backpressure))  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L265 | 39    | L263 and ((weight or weigh\$3) with<br>(pause or halt\$3 or stop\$4 or back<br>pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L266 | 137   | L263 and ((weight or weigh\$3)<br>same (pause or halt\$3 or stop\$4 or<br>back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L267 | 75    | L266 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L268 | 59866 | 370/329,335,464,465,468.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L269 | 8614  | L268 and (pause or halt\$3 or stop\$4<br>or back pressure or backpressure)                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;                                | ADJ | ON | 2015/09/30<br>00:14 |

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|      |    |   | JPO;<br>DERWENT;<br>IBM_TDB  |     |    |                     |
| L270 | 27 | L268 and ((weight or weigh\$3) with (pause or halt\$3 or stop\$4 or back pressure or backpressure)) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L271 | 2  | L267 and L270   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L272 | 25 | L270 not L271   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L273 | 2  | L272 and (network with flow)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |
| L274 | 15 | L272 and (network and flow)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS; EPO;<br>JPO;<br>DERWENT;<br>IBM_TDB | ADJ | ON | 2015/09/30<br>00:14 |


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**EAST Search History****EAST Search History (Interference)**

| <b>Ref #</b> | <b>Hits</b> | <b>Search Query</b>   | <b>DBs</b>     | <b>Default Operator</b> | <b>Plurals</b> | <b>Time Stamp</b>   |
|--------------|-------------|---|----------------|-------------------------|----------------|---------------------|
| L2           | 4           | ((flow with control) and ((backpressure or halt) same (weight or weigh\$4))).clm. | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:32 |
| L3           | 5           | ((flow with control) and ((backpressure or halt) same (weight or weigh\$4))).clm. | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:33 |
| L4           | 1           | 3 not 2   | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:33 |
| L7           | 123         | ((flow with control) and ((backpressure or halt) and (rate with flow ))).clm.     | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:34 |
| L8           | 7           | 7 and (weigh\$5 or weight).clm.   | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:34 |
| L10          | 6           | 7 and (lucent).asn.   | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:35 |
| L11          | 1           | 10 and (weight or weigh\$5).clm.  | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:36 |
| L12          | 1           | 10 and (weight\$5 or weigh\$5).clm.   | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:37 |
| L13          | 1           | 10 and (weigh\$5 or weight).clm.  | USPAT;<br>UPAD | ADJ                     | ON             | 2015/09/29<br>23:37 |


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| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br>MADSEN ET AL. |
|   | <b>Examiner</b><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br>2462   |

| CPC    |  |    |   |      |      |            |
|--------|--|----|---|------|------|------------|
| Symbol |  |    |   |      | Type | Version    |
| H04L   |  | 47 | / | 10   | F    | 2013-01-01 |
| H04L   |  | 47 | / | 2441 | I    | 2013-01-01 |
| H04L   |  | 47 | / | 263  | I    | 2013-01-01 |
| H04L   |  | 47 | / | 29   | I    | 2013-01-01 |
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| CPC Combination Sets |      |     |         |         |
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|---|------------|------------------------------|-------------------|
| NONE  |            | <b>Total Claims Allowed:</b> |                   |
|   |            | 20                           |                   |
| (Assistant Examiner)                                | (Date)     |                              |                   |
| /SAMINA CHOUDHRY/<br>Primary Examiner.Art Unit 2462 | 09/28/2015 | O.G. Print Claim(s)          | O.G. Print Figure |
| (Primary Examiner)                                  | (Date)     | 1                            | 1                 |

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| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br>MADSEN ET AL. |
|   | <b>Examiner</b><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br>2462   |

| US ORIGINAL CLASSIFICATION |  |                                   |          |  |  | INTERNATIONAL CLASSIFICATION |   |   |   |                     |             |  |  |  |  |  |
|----------------------------|--|-----------------------------------|----------|--|--|------------------------------|---|---|---|---------------------|-------------|--|--|--|--|--|
| CLASS                      |  |                                   | SUBCLASS |  |  | CLAIMED                      |   |   |   |                     | NON-CLAIMED |  |  |  |  |  |
| 370                        |  |                                   | 235      |  |  | H                            | 0 | 4 | L | 5 / 12 (2006.01.01) |             |  |  |  |  |  |
| CROSS REFERENCE(S)         |  |                                   |          |  |  |                              |   |   |   |                     |             |  |  |  |  |  |
| CLASS                      |  | SUBCLASS (ONE SUBCLASS PER BLOCK) |          |  |  |                              |   |   |   |                     |             |  |  |  |  |  |
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|   |            |                              |                   |
|---|------------|------------------------------|-------------------|
| NONE  |            | <b>Total Claims Allowed:</b> |                   |
|   |            | 20                           |                   |
| (Assistant Examiner)                                | (Date)     |                              |                   |
| /SAMINA CHOUDHRY/<br>Primary Examiner.Art Unit 2462 | 09/28/2015 | O.G. Print Claim(s)          | O.G. Print Figure |
| (Primary Examiner)                                  | (Date)     | 1                            | 1                 |

|   |  |   |
|---|--|---|
| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>13360310 | <b>Applicant(s)/Patent Under Reexamination</b><br>MADSEN ET AL. |
|   | <b>Examiner</b><br>SAMINA CHOUDHRY         | <b>Art Unit</b><br>2462   |

| <input checked="" type="checkbox"/> <b>Claims renumbered in the same order as presented by applicant</b> <input type="checkbox"/> <b>CPA</b> <input checked="" type="checkbox"/> <b>T.D.</b> <input type="checkbox"/> <b>R.1.47</b> |          |       |          |       |          |       |          |       |          |       |          |       |          |       |          |
|---|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|-------|----------|
| Final   | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final | Original |
| -   | 1        | 1     | 17       | 17    | 33       |       |          |       |          |       |          |       |          |       |          |
| -   | 2        | 2     | 18       | 18    | 34       |       |          |       |          |       |          |       |          |       |          |
| -   | 3        | 3     | 19       | 19    | 35       |       |          |       |          |       |          |       |          |       |          |
| -   | 4        | 4     | 20       | 20    | 36       |       |          |       |          |       |          |       |          |       |          |
| -   | 5        | 5     | 21       |       |          |       |          |       |          |       |          |       |          |       |          |
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| -   | 7        | 7     | 23       |       |          |       |          |       |          |       |          |       |          |       |          |
| -   | 8        | 8     | 24       |       |          |       |          |       |          |       |          |       |          |       |          |
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| -   | 11       | 11    | 27       |       |          |       |          |       |          |       |          |       |          |       |          |
| -   | 12       | 12    | 28       |       |          |       |          |       |          |       |          |       |          |       |          |
| -   | 13       | 13    | 29       |       |          |       |          |       |          |       |          |       |          |       |          |
| -   | 14       | 14    | 30       |       |          |       |          |       |          |       |          |       |          |       |          |
| -   | 15       | 15    | 31       |       |          |       |          |       |          |       |          |       |          |       |          |
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|   |  |                              |                   |
|---|--|------------------------------|-------------------|
| NONE  |  | <b>Total Claims Allowed:</b> |                   |
| (Assistant Examiner)                                |  | 20                           |                   |
| (Date)  |  |                              |                   |
| /SAMINA CHOUDHRY/<br>Primary Examiner.Art Unit 2462 |  | O.G. Print Claim(s)          | O.G. Print Figure |
| (Primary Examiner)                                  |  | 1                            | 1                 |
| (Date)  |  | 09/28/2015                   |                   |



## UNITED STATES PATENT AND TRADEMARK OFFICE

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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

|   |      |            |
|---|------|------------|
| 76614   | 7590 | 10/15/2015 |
| Terry W. Kramer, Esq.<br>Kramer & Amado, P.C.<br>330 John Carlyle Street<br>3rd Floor<br>Alexandria, VA 22314 |      |            |

|                    |  |
|--------------------|--|
| EXAMINER           |  |
| CHOUDHRY, SAMINA F |  |

|          |              |
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| ART UNIT | PAPER NUMBER |
| 2462     |              |

|                   |               |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
| 10/15/2015        | ELECTRONIC    |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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Application No. : 13360310  
Applicant : Madsen  
Filing Date : 01/27/2012  
Date Mailed : 10/15/2015

## NOTICE TO FILE CORRECTED APPLICATION PAPERS

### *Notice of Allowance Mailed*

This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

**Applicant is given two (2) months from the mail date of this Notice within which to respond. This time period for reply is extendable under 37 CFR 1.136(a) for only TWO additional MONTHS.**

The informalities requiring correction are indicated in the attachment(s). If the informality pertains to the abstract, specification (including claims) or drawings, the informality must be corrected with an amendment in compliance with 37 CFR 1.121 (or, if the application is a reissue application, 37 CFR 1.173). Such an amendment may be filed after payment of the issue fee if limited to correction of informalities noted herein. See Waiver of 37 CFR 1.312 for Documents Required by the Office of Patent Publication, 1280 Off. Gaz. Patent Office 918 (March 23, 2004). In addition, if the informality is not corrected until after payment of the issue fee, for purposes of 35 U.S.C. 154(b)(1)(iv), "all outstanding requirements" will be considered to have been satisfied when the informality has been corrected. A failure to respond within the above-identified time period will result in the application being ABANDONED.

See attachment(s).

*A copy of this notice **MUST** be returned with the reply. Please address response to  
"Mail Stop Issue Fee, Commissioner for Patents,  
P.O. Box 1450, Alexandria, VA 22313-1450".*

/Carlota Erana/  
Publication Branch  
Office of Data Management  
(571) 272-4200

**Application No. 13360310**

**IDENTIFICATION OF APPLICATION DEFICIENCIES  
IN APPLICATION FILED BEFORE SEPTEMBER 16, 2012**

- ☐ Applicant must provide legible text for the following item(s).
- ☐ Specification filed , page(s) .
- ☐ Claims filed , claim(s) .
- ☐ Other:
- ☒ Applicant must provide missing information on the following page(s) of the specification by amending the specification to add the missing text. No new matter may be added.  
Page/line no(s). Page 4 para. 0011 line 4 is incomplete. It ends with the word "and"
- ☐ The specification refers to one or more applications by attorney docket number and does not show the U.S. application number(s). Applicant must supply the U.S. application number in place of each attorney docket number.  
Page/line no(s).
- ☐ Applicant must provide an Abstract of the Disclosure.
- ☐ The Application Data Sheet (ADS dated ) did not show the inventor's residence at all, or did not show both a city and state in the U.S. inventor's residence, or did not show both a city and country in the non-U.S. inventor's residence. Applicant must supply a Supplemental Application Data Sheet (ADS) that shows each U.S. inventor's city and state of residence and each non-U.S. inventor's city and country of residence. To be in compliance with 37 CFR 1.76, the Supplemental Application Data Sheet must identify the information being changed by using underlining for additions and strikethroughs or brackets for deletions.
- ☐ Other:

**REPLY UNDER 37 C.F.R. § 1.312  
TECHNOLOGY CENTER 2400**

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|                        |  |
|------------------------|--|
| In re Application of   | John Madsen  |
| For                    | Ingress Traffic Flow Control in a Data Communications System |
| Serial Number          | 13/360,310   |
| Filed                  | January 27, 2012   |
| Art Unit               | 2462   |
| Examiner               | Samina F. Choudhry   |
| Attorney Docket Number | ALC 3328-CON   |
| Confirmation Number    | 1373   |

**AMENDMENT UNDER 37 C.F.R. § 1.312**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Notice to File Corrected Application Papers mailed October 15, 2015, and further, to the Notice of Allowance mailed October 8, 2015, please amend the above-identified application as set forth below:

**AMENDMENTS TO THE SPECIFICATION** begin on page 2 of this paper.

**REMARKS** begin on page 3 of this paper.

Application No: 13/360,310  
Attorney Docket No: ALC 3328-CON

**AMENDMENTS TO THE SPECIFICATION**

Please amend the specification as follows:

Page 4, paragraph [0011]:

[0011] The invention will be further understood from the following detailed description with reference to the drawings, in which:

**Figure 1** is a high-level block diagram of an ingress traffic flow control system according to an embodiment of the invention[[: and]].

Application No: 13/360,310  
Attorney Docket No: ALC 3328-CON

**REMARKS**

The specification has been amended to correct a minor typographical error. No further amendments have been introduced, and the amendments so not introduce new matter.

**CONCLUSION**

Should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner telephone the undersigned attorney in order to expeditiously resolve any outstanding issues.

In the event that the fees submitted prove to be insufficient in connection with the filing of this paper, please charge our Deposit Account Number 50-0578 and please credit any excess fees to such Deposit Account.

Respectfully submitted,  
**KRAMER & AMADO, P.C.**

Date: October 28, 2015

/Terry W. Kramer/  
Terry W. Kramer  
Registration No.: 41,541

KRAMER & AMADO, P.C.  
330 John Carlyle Street, 3<sup>rd</sup> Floor  
Alexandria, VA 22314  
Phone: 703-519-9801  
Fax: 703-519-9802

**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 23921676   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Terry Wayne Kramer/wendy spradlin                            |
| <b>Filer Authorized By:</b>                 | Terry Wayne Kramer   |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 28-OCT-2015  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 17:28:20   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
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**File Listing:**

| Document Number | Document Description | File Name         | File Size(Bytes)/<br>Message Digest               | Multi Part /.zip | Pages (if appl.) |
|-----------------|----------------------|-------------------|---|------------------|------------------|
| 1               |                      | Amendment_312.pdf | 60303<br>2ea13807a33e45735b816ef3728bb54dc97cb641 | yes              | 3                |

## Multipart Description/PDF files in .zip description

| Document Description                             | Start | End |
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| Amendment after Notice of Allowance (Rule 312)   | 1     | 1   |
| Specification                                    | 2     | 2   |
| Applicant Arguments/Remarks Made in an Amendment | 3     | 3   |

**Warnings:****Information:****Total Files Size (in bytes):**

60303

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 13/360,310  | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |
| 76614   | 7590        | 11/02/2015           | EXAMINER            |                  |
| Terry W. Kramer, Esq.<br>Kramer & Amado, P.C.<br>330 John Carlyle Street<br>3rd Floor<br>Alexandria, VA 22314 |             |                      | CHOUDHRY, SAMINA F  |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2462                |                  |
|   |             |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|   |             |                      | 11/02/2015          | ELECTRONIC       |

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mail@krameramado.com



|  |                                      |                     |
|--|--------------------------------------|---------------------|
| <b>Response to Rule 312 Communication</b>  | <b>Application No.</b><br>13/360,310 | <b>Applicant(s)</b> |
|  | <b>Examiner</b>                      | <b>Art Unit</b>     |
| <p align="center"><b>-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --</b></p> <p>1. <input checked="" type="checkbox"/> The amendment filed on <u>28 October 2015</u> under 37 CFR 1.312 has been considered, and has been:</p> <p>a) <input checked="" type="checkbox"/> entered.</p> <p>b) <input type="checkbox"/> entered as directed to matters of form not affecting the scope of the invention.</p> <p>c) <input type="checkbox"/> disapproved because the amendment was filed after the payment of the issue fee.<br/>Any amendment filed after the date the issue fee is paid must be accompanied by a petition under 37 CFR 1.313(c)(1) and the required fee to withdraw the application from issue.</p> <p>d) <input type="checkbox"/> disapproved. See explanation below.</p> <p>e) <input type="checkbox"/> entered in part. See explanation below.</p> <p>N.Y. Horne</p> <p>PUBLISHING DIVISION</p> |                                      |                     |
|  |                                      |                     |

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE  
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**or Fax (571)-273-2885**

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76614 7590 10/08/2015  
 Terry W. Kramer, Esq.  
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 3rd Floor  
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|--------------------|
| (Depositor's name) |
| (Signature)        |
| (Date)             |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 13/360,310      | 01/27/2012  | John Madsen          | ALC 3328-CON        | 1373             |

TITLE OF INVENTION: INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | UNDISCOUNTED  | \$960         | \$0                 | \$0                  | \$960            | 01/08/2016 |

| EXAMINER           | ART UNIT | CLASS-SUBCLASS |
|--------------------|----------|----------------|
| CHOUDHRY, SAMINA F | 2462     | 370-235000     |

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- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

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- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,  
 (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1. Kramer & Amado, P.C.

2. \_\_\_\_\_

3. \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE (CITY and STATE OR COUNTRY)

Alcatel Lucent - Boulogne-Billancourt, France

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

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- ☐ A check is enclosed.  
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☒ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number 12-2325 (enclose an extra copy of this form).

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- ☐ Applicant certifying micro entity status. See 37 CFR 1.29  
☐ Applicant asserting small entity status. See 37 CFR 1.27  
☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature

*Patty Giebler*

Date

12-30-15

Typed or printed name

Patty Giebler

Registration No.

----

## Electronic Patent Application Fee Transmittal

|  |  |                 |               |                             |
|--|--|-----------------|---------------|-----------------------------|
| <b>Application Number:</b>                         | 13360310   |                 |               |                             |
| <b>Filing Date:</b>                                | 27-Jan-2012  |                 |               |                             |
| <b>Title of Invention:</b>                         | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |                 |               |                             |
| <b>First Named Inventor/Applicant Name:</b>        | John Madsen  |                 |               |                             |
| <b>Filer:</b>                                      | Gregory J. Murgia/Patty Giebler                              |                 |               |                             |
| <b>Attorney Docket Number:</b>                     | ALC 3328-CON   |                 |               |                             |
| Filed as Large Entity                              |  |                 |               |                             |
| <b>Filing Fees for Utility under 35 USC 111(a)</b> |  |                 |               |                             |
| <b>Description</b>                                 | <b>Fee Code</b>  | <b>Quantity</b> | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                               |  |                 |               |                             |
| <b>Pages:</b>                                      |  |                 |               |                             |
| <b>Claims:</b>                                     |  |                 |               |                             |
| <b>Miscellaneous-Filing:</b>                       |  |                 |               |                             |
| <b>Petition:</b>                                   |  |                 |               |                             |
| <b>Patent-Appeals-and-Interference:</b>            |  |                 |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>           |  |                 |               |                             |
| Utility Appl Issue Fee                             | 1501   | 1               | 960           | 960                         |

| Description        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|--------------------|----------|----------|--------|----------------------|
| Extension-of-Time: |          |          |        |                      |
| Miscellaneous:     |          |          |        |                      |
| Total in USD (\$)  |          |          |        | 960                  |

**Electronic Acknowledgement Receipt**

|   |  |
|---|--|
| <b>EFS ID:</b>                              | 24489414   |
| <b>Application Number:</b>                  | 13360310   |
| <b>International Application Number:</b>    |  |
| <b>Confirmation Number:</b>                 | 1373   |
| <b>Title of Invention:</b>                  | INGRESS TRAFFIC FLOW CONTROL IN A DATA COMMUNICATIONS SYSTEM |
| <b>First Named Inventor/Applicant Name:</b> | John Madsen  |
| <b>Customer Number:</b>                     | 76614  |
| <b>Filer:</b>                               | Gregory J. Murgia/Patty Giebler                              |
| <b>Filer Authorized By:</b>                 | Gregory J. Murgia  |
| <b>Attorney Docket Number:</b>              | ALC 3328-CON   |
| <b>Receipt Date:</b>                        | 30-DEC-2015  |
| <b>Filing Date:</b>                         | 27-JAN-2012  |
| <b>Time Stamp:</b>                          | 12:03:30   |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                  |

**Payment information:**

|  |                 |
|--|-----------------|
| Submitted with Payment                   | yes             |
| Payment Type                             | Deposit Account |
| Payment was successfully received in RAM | \$960           |
| RAM confirmation Number                  | 13522           |
| Deposit Account                          | 122325          |
| Authorized User                          | GIEBLER, PATTI  |

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 CFR 1.20 (Post Issuance fees)

### File Listing:

| Document Number | Document Description        | File Name                                      | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
|-----------------|-----------------------------|--|--|------------------|------------------|
| 1               | Issue Fee Payment (PTO-85B) | 2015-12-30_801272-US-CNT_Issue_Fee_Payment.pdf | 346519                                   | no               | 1                |
|                 |                             |  | a702154f4f39da5d48b81c6a024e23f54c6dc20a |                  |                  |

### Warnings:

### Information:

|   |                      |              |  |    |   |
|---|----------------------|--------------|--|----|---|
| 2 | Fee Worksheet (SB06) | fee-info.pdf | 30609                                    | no | 2 |
|   |                      |              | 212d5bbef6ee3db981024f73a20c4a1e847106ac |    |   |

### Warnings:

### Information:

|                              |  |  |        |
|------------------------------|--|--|--------|
| Total Files Size (in bytes): |  |  | 377128 |
|------------------------------|--|--|--------|

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
**United States Patent and Trademark Office**  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO. | ISSUE DATE | PATENT NO. | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|------------|------------|---------------------|------------------|
| 13/360,310      | 02/09/2016 | 9258232    | ALC 3328-CON        | 1373             |

76614 7590 01/20/2016  
 Terry W. Kramer, Esq.  
 Kramer & Amado, P.C.  
 330 John Carlyle Street  
 3rd Floor  
 Alexandria, VA 22314

**ISSUE NOTIFICATION**

The projected patent number and issue date are specified above.

**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**  
 (application filed on or after May 29, 2000)

The Patent Term Adjustment is 738 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

John Madsen, Ottawa, CANADA;  
 Joey Chow, Nepean, CANADA;  
 Dion Pike, Stittsville, CANADA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit [SelectUSA.gov](http://SelectUSA.gov).

AO 120 (Rev. 08/10)

|   |   |
|---|---|
| <b>TO: Mail Stop 8</b><br><b>Director of the U.S. Patent and Trademark Office</b><br><b>P.O. Box 1450</b><br><b>Alexandria, VA 22313-1450</b> | <b>REPORT ON THE</b><br><b>FILING OR DETERMINATION OF AN</b><br><b>ACTION REGARDING A PATENT OR</b><br><b>TRADEMARK</b> |
|---|---|

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been  
 filed in the U.S. District Court Western District of Texas on the following

☐ Trademarks or ☒ Patents. ( ☐ the patent action involves 35 U.S.C. § 292.):

|  |                                |   |
|--|--------------------------------|---|
| DOCKET NO.<br>6:20-cv-495  | DATE FILED<br>6/3/2020         | U.S. DISTRICT COURT<br>Western District of Texas                    |
| PLAINTIFF<br><br>WSOU INVESTMENTS, LLC d/b/a BRAZOS<br>LICENSING AND DEVELOPMENT |                                | DEFENDANT<br><br>ZTE CORPORATION, ZTE (USA) INC.;<br>ZTE (TX), INC. |
| PATENT OR<br>TRADEMARK NO.   | DATE OF PATENT<br>OR TRADEMARK | HOLDER OF PATENT OR TRADEMARK                                       |
| 1 U.S. 9,258,232   | 2/9/2016                       | WSOU Investments, LLC   |
| 2  |                                |   |
| 3  |                                |   |
| 4  |                                |   |
| 5  |                                |   |

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

|                            |   |                               |
|----------------------------|---|-------------------------------|
| DATE INCLUDED              | INCLUDED BY<br><input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading |                               |
| PATENT OR<br>TRADEMARK NO. | DATE OF PATENT<br>OR TRADEMARK  | HOLDER OF PATENT OR TRADEMARK |
| 1                          |   |                               |
| 2                          |   |                               |
| 3                          |   |                               |
| 4                          |   |                               |
| 5                          |   |                               |

In the above—entitled case, the following decision has been rendered or judgement issued:

|                    |
|--------------------|
| DECISION/JUDGEMENT |
|--------------------|

|       |                   |      |
|-------|-------------------|------|
| CLERK | (BY) DEPUTY CLERK | DATE |
|-------|-------------------|------|

Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy